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OF THE

Missouri State Medical Association

THE OFFICIAL ORGAN OF THE STATE ASSOCIATION AND AFFILIATED COUNTY SOCIETIES

ISSUED MONTHLY UNDER DIRECTION OF THE PUBLICATION COMMITTEE

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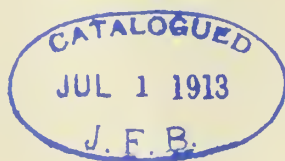
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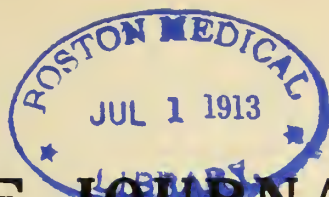
E. J. GOODWIN, M.D., Editor

OFFICE OF PUBLICATION, 3525 PINE STREET, ST. LOUIS, MISSOURI

INDEX TO VOLUME VII

JULY, 1910, TO JUNE, 1911





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Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

JULY, 1910

Number 1

E. J. GOODWIN, M.D.,
EDITOR

12-23

PUBLICATION COMMITTEE: M. B. COPTON, M.D., Chairman
A. W. McALESTER, Jr., M.D.
M. C. SHELTON, M.D.

ORIGINAL ARTICLES

THE RELATION OF THE PHYSICIAN TO THE PUBLIC—PRESIDENT'S ADDRESS*

TINSLEY BROWN, M.D.
HAMILTON, MO.

The education of the professional man to-day is different from what it was a half or even a quarter century ago. The standard has been raised, and this is especially true in our own profession. I do not believe it will be disputed by any intelligent person that the truly educated man enters any of the learned professions for the sole purpose of money-making; truly, the educated man must have, and is justly entitled to, an income sufficient to live in harmony with the ambitions which spring from an awakened intellect. If he is to give his best efforts to the public, if he is to be the flower of American civilization, the ideal physician, there must be no necessity of being bothered at the end, or the beginning, of a month to know how to raise money to meet the exigencies that naturally come to every professional man.

The best physicians of to-day are probably more expensively trained than for any of the other learned professions. A four-year high school course, from two to four years more in college, and then four years in the medical college, is nearly the requirement of to-day. The physician of to-day should be, and, indeed, should always have been, a person not only well informed in his profession, but he should be able to converse on any subject, and to advise upon matters other than those of a medical nature. The physician should be the family adviser as to physical and worldly affairs, and above all, he should be of pure and chaste character. He should not be assumptive, but what he says should be well weighed and spoken with the assurance that it was as true as Gospel.

It can hardly be said that those who have the good of mankind at heart predominate in numbers in our profession; a large number undoubtedly are engaged in our noble calling merely for the money to be made; that is the reason why our country is over-run with charlatans and quacks. Such doctors have no regard for principle. Their stock-in-trade is "promises," and these are never intended to be fulfilled. A certain class engage in practices that are criminal, and all the health boards and examining boards in existence cannot regulate such practices until the laity are made to understand that the honest part of the profession is not fighting the battle for money, but for morality, for good, clean living and for the preservation of the living, born and unborn. The laity do not always take the advice of those who are truly their friends, but do oftentimes listen to the words of those who are not honest in giving advice.

First of all, young men who contemplate the study of medicine should be willing and voluntary scholars; the desire for knowledge must be a natural instinct, born in them and continuing with them during their whole lives. The instinct is oftentimes but feebly shown in the early period of many young students, but can be developed and made permanent by a thorough education in lines leading to the study of medicine. If he is thoroughly educated in this respect, the student is apt to think not so much of the commercial aspect of his profession, which, if persisted in, will lead him into the class with the charlatan and the quack.

In a social way we might ask what has the well-educated and busy physician accomplished toward establishing kindly relations with the father, mother and children of his families, and becoming an integral part of the family life? Has he not been little more than diagnostician, and a prescribing machine, doing his work with mechanical precision, but leaving no more mark of his personality than would a perfect piece of mechanism? We answer: In order that the physician may wield the influence that he did of old

* Delivered at the Fifty-third Annual Meeting of the Missouri State Medical Association, Hannibal, May, 1910.

and regain his place of authority in the community, that there might be a happy medium between the busy doctor of to-day, who has no time to give, or spend a moment in friendly advice, and the worthy of the by-gone century, who practiced the art of medicine while the modern man practiced the science as well as the art of medicine. During his office hours he would give each patient his sole and undivided attention. After his office work he would make his calls, and perhaps the first patient would be a sick mother. Knowing the husband well, he would have a friendly word with him, pursuant to informing him later as to the nature of his wife's indisposition. He would make a mental note of the condition of the children, as he passed them with a friendly smile. He would take his seat quietly by the patient's bedside and study her case in a comprehensive way, allowing her to tell her story, and so getting a side-light on possible complications of which the present attack was but a manifestation. His prescription for the immediate illness would be accompanied by advice calculated to prevent a recurrence of the attack; and the visit would leave a sense of confidence and respect in the mind of the sufferer such as a whirlwind entrance and exit would never give.

Leaving the sickroom, he would voluntarily seek the head of the house, would relieve him of his anxiety as to his wife's illness, and give him such hints as occurred to him concerning his own conduct in the care of her health. He would inquire with regard to the health and constitutions of the children, and if there were any indications of lack of vigor, or lack of development in any of them, he would cause such child to be brought to him and subject it to a careful examination. At the next house, the sanitary condition in or about the house or home would come in for inspection, and some source of disease, such as a neglected or a hidden drain, might be discovered, which would throw light on many inexplicable illnesses in the house.

Of course, all these subjects could not, or should not, be discussed at one visit, but it would be the habit of mind of the physician to be on the alert for the discovery of any condition that might influence the health of the inmates unfavorably.

In other words, he would not consider that his responsibility ended in prescribing a pill or a potion in any individual case of sickness, but would constitute himself a jealous guardian of the health of the entire family. As opportunity offered, he would enlighten the older members of the family upon questions of hygiene, and even call their attention to the requirements of personal hygiene. He would insist on the vaccination of every child born into the family, and make the parents appreciate the importance of this measure, both as a protection to the family and as a duty owed to the community.

Parents who had such instruction, would be extremely cautious about allowing their children to associate with those suffering with measles, whooping-cough, or other so-called children's diseases, knowing what terrible sequelæ may result from cases which in themselves appear trifling; and they would be just as careful not to permit their own children to convey these diseases to others.

The diet of the children of such families would be plain, substantial and nourishing, fitted to lay a foundation of vigorous health, which would render them immune to the germs of tuberculosis, to which they at some time all are apt to be exposed; and if the child exhibited any well-marked indications of strumous tendency, especial attention would be given to the diet of such child.

He would take an interest in the education of the children of his patients. If any of them showed special morbid tendencies, he would give such advice as would result in overcoming them. Children with narrow chests, or a tendency to spinal curvature, would be put in the way of taking appropriate exercises, and encouraged to spend much time in the open air. Those who showed a predisposition to pulmonary affections would be placed at school in locations affording the best climatic conditions. Those evincing cardiac weakness would be guarded against excessive exercise and the exaggerated athletics of the day. Those who showed unusual mental precocity, combined with nervous excitability and defective muscular development, would be warned against undue muscular strain, and their parents would be led to appreciate the advantage to be derived from interrupting their schooling, and allowing them to lead an unrestrained outdoor life.

The confidence placed in him as a doctor in physical disorders could easily be brought to include also moral conditions, especially in the training of the boys of the family. Growing youths who would resent the advice of a clergyman will gladly listen to advice from a physician, whom they have grown up to respect and trust.

In these ways, and in many others that have occurred to you, such a physician would do more than any other individual in the community toward establishing a noble American type of manhood.

When we fully realize the fact that upon us depends the perfection of our people, we will rise to the full measure of our responsibilities, not resting until we have seen to it that the children of our patients are placed in proper environment to permit and encourage the development of a grand race of men and women.

And when the parents realize that we are taking a deep and real interest in maintaining the health of those so near and dear to them, in-

structing them how to avoid disease by all the methods that science can suggest, then the "medical man" will command the respect of the community to so high a degree that he will again wield the influence in our midst that his high profession entitles him to exercise.

At present, the people do not come into sufficiently close relation with the physician to understand the human side of his character and to realize the sacrifice which he is daily making for their good. The association is too mechanical, so to speak. The physician and the patient appear to the observer to be drifting farther and farther apart. To this we must attribute the fact that he no longer possesses the influence in governmental affairs that he once did, and which he properly should possess. To recover this power it is essential that we should awaken to a realization of the great strides which preventive medicine has been making, and cause our knowledge of this branch of medical science to be felt in each household we enter in each community in which we live.

We, as a rule, in accepting a diploma from a chartered medical college, or license from an examining board, do not realize that we take upon ourselves an obligation to maintain the good of the state and the public health: for it is due the citizen that we furnish knowledge gratuitously at such times and in such ways as the state may deem necessary.

We are in possession of knowledge of the cause of disease, as well as its treatment, and it is our duty, in our intercourse with our patients, not only to treat individual cases of disease, but to take the opportunity thus offered to give instructions such as will tend to prevent the recurrence and spread of that and similar diseases.

The keynote of success is, helpfulness! If it be helpfulness based upon scientific observation, deduction and knowledge, it makes the highest and most desirable attainment possible to the educated physician. But no matter upon what foundation the help is based, the fact of being helped is all that concerns the sufferer.

Our business is to heal the sick, save the injured, remove the abnormalities which are the marks of death upon healthy tissues; but the work must be done with kindly hands and still more kindly, sympathetic spirit. Gruffness of manner, stern and unflinching orders, unless properly studied and given, are not always kindly received by the sick person; the dogmatism born of much theorizing is all-terrifying and disquieting to the sick body and apprehensive mind of the sufferer. The sick are not cured by knowledge alone, but knowledge, joined with gentleness, tact, amiability and sincere sympathy, is invincible. Agonizing doubt is soothed into trustful confidence, despair fades and hope is born by kindly ministrations of the helpful physician. He lifts the crushed load of uncer-

tainty from apprehensive friends, as he assumes the responsibility for results with cheerful faith. To our mortal eye, he, more than any other human agent, symbolizes that spiritual trust which steals upon us in moments of unexpected agony. He is a "cloud by day and a pillar of fire by night" leading the way to the Promised Land.

A man with such opportunities for good, bearing such responsibilities of life and death, possessing the power to soothe the mind to peaceful rest, or irritate it into disquieting terror, should be above reproach in his reputation, cheerful in his disposition, inspiring in his action, liberal in his knowledge and tolerant in his opinions. The true ideal for a medical man is to become a bringer of peace to those entrusted to his care, rather than to acquire a store of worldly goods by commercializing his work among the people.

A "bringer of peace" into families racked with anxiety and distress for the safety of loved ones stricken by disease! To the individual, who indefinitely feels the deterioration of his physical strength, and fancies death blocking his way while so much of his life work remains to be done! To the young mother, who feels her life slipping away from her ere she has time to smile upon the new life which is sweeter to her than her own! To him, whose body has been mangled and torn by the merciless wheels which unceasingly grind products for feverish civilization! To the wretch, who plunges into the vortex of pleasure and dissipation, only to be cast forth unclean and brutalized! To all who clamor for succor, under the stress of physical pain and fear of death. Comfort, health and length of days are the human blessings which attend his daily toil. Relief, resignation, confident hope, are the mercies with which he soothes the spirit as it drifts away into immortality. Such an one is the physician. A Bringer of Peace!

These are the conditions with which we are forced to deal with as hindrances in the development and fixing of this ideal in the public and ourselves—ignorance, superstition, incompetency. Ignorance on the part of the public is the basic motive which has caused unselfish physicians to assume the lifework of personal sacrifice and responsibility for the good of others. Ignorance, concerning the benefits of prevention rather than the cure of disease. In consequence of this ignorance the duties, restraints, responsibilities and care, devolving upon the individual and public to prevent disease, are looked upon as hardships and infringement of liberty, and are, therefore, opposed or performed with a bad grace. General ignorance of the great fact that educated, scientific, helpful physicians are of more economic value to the community than are all the multitudinous affairs which go to make up the luxury of life; for physicians protect and restore the health of the people and lengthen the span of life by their skill.

What shall it profit a man if he gains the earth and loses his health? Intelligent communities, as a general thing, demand intelligent doctors, and have good health and length of days. The ignorant community is satisfied with an ignorant doctor, and he invariably gravitates to it, and in consequence the churchyard is supplied with unbidden guests.

Many doctors are ignorant of the fact that their knowledge, theories, systems and speculations are of no practical value unless they actually enable them to relieve suffering and cure disease. This is the test by which they must prove themselves to be helpers and bringers of peace, or failures and a handicap to the progress of medicine.

Unfortunately, the indiscriminating public often forms its judgment of the helpful medical profession, from the manifest incompetency of the pretenders and failures who practice medicine as a business. Some day the public will understand what a doctor should be, and accept no man who falls below the standard. Some day the ambitious pretender will understand that something more than the title of "doctor" is required to enable him to minister to the sick and injured.

Notwithstanding the boastful knowledge and enlightenment among the people as the result of a liberal system of general education, there is a taint of absurd superstition corrupting the mental progress of multitudes of people. The charms, the amulets, the measurings, the mumbling incantations of the decrepit dame, the filthy decoctions and absurd passes of the slouchy old man, the conjuror of spirits, the twister, the smoother, the feeler, the dreamer, the patent-medicine vender, the magnetizer, the fortune teller—all, all are welcome into many houses where common-sense, intelligence and scientific care are needed to relieve and cure the helpless sick.

Doctors meet and combat superstition almost daily. The people of many communities are wearing cheap metal rings that actually did not cost more than two cents, for which they paid two dollars and upward, and are assured that by the wearing of these rings they will be cured of divers diseases. This is a striking instance of the vagaries which affect modern intellect.

Incompetency among medical men is an ever-present danger to the public. It is made greater by the blatant claims of the incompetent, and the childlike gullibility of a respectable minority of the public. The public is taken in by the itinerant quack who will represent that he has had a great amount of hospital training in the institutions of this and the Old World—that he is licensed by the board of health of our state, which mostly is a fact. Not long since, one who claimed residence in our largest city, made frequent visits to my neighborhood and for a time did a business, equal in some respects to the Mabray fake horse race, foot race and wrestling matches, which was the means of relieving many

persons of their ready cash who desired to get rich quick.

High-sounding advertisements often catch people who are otherwise considered sensible and educated. They are mystified by promises from those whose medical knowledge is vague and crude. The treatment lasts as long as the patient's money lasts, and he still possesses his delusion. Then with nameless dread the unhappy sufferer appeals frantically for relief and cure to those who know, only to learn that pathological changes have blasted all hope of recovery and sealed them with the seal of death.

If the mighty host of those who have been rushed into untimely graves by incompetent, pretending physicians could be marshalled into an army and marched in ghastly review before the astonished eyes of our indifferent legislators, what a ghost-like multitude of outraged victims would there be; one which would appeal by its magnitude and horror, and excite the law-makers to a frenzy of action, in the elimination of the incompetents from the ranks of those who assume to care for health and life. Conditions would soon be changed and the public would be aroused.

The true relation between the public and scientific medicine is not yet understood, either by the doctor or the citizen. The causes of the misunderstanding are ignorance, superstition and incompetency. These are gross evils, and both sides are afflicted by each of them to some degree. It should not be possible for these vulgar evils to exist and modify conduct and opinions in this age of general enlightenment; but, if we view the situation without prejudice, we must confess that they do exist.

Education is the remedy, education of the doctor to higher professional standing, and education of the public to common-sense and just judgment concerning the doctor. An enlightened public is the goal to be obtained. The vast enterprise which means so much for humanity, depends for its success largely upon the medical profession. Before it can be completely justified to the satisfaction of the public, the profession must be harmonized upon liberal, basic principles. The individual physician must first purge himself of all tendencies to arrogance in conduct and opinion. He must cultivate a broad, liberal and conciliatory state of mind, concerning his professional associates. He must prize helpful, scientific knowledge above theories and traditions and judge the qualities of his associates by the standard of helpfulness rather than by artificial classification.

The county society, which is the foundation of our strength, would be in its influence raised to limits consistent with professional and public advantage. Narrowness, sectarianism and personal jealousies would be reduced to a minimum, but friendly and instructive association strengthened and encouraged. Honest men, engaged in

the profession for the good of mankind, would have no difficulty in making the profession what it should be and accomplish what it should attain.

The doctrine of tolerance is an excellent doctrine, when honesty is the subject. With this in view, nothing but good can flow from a consistent and discriminating practice of the liberal virtues. The influence and power of each one of us would be enlarged by regulating our relations with our fellow-practitioners upon the basis of honest, unselfish tolerance. Each of us, then, more than ever before, would not hesitate to recognize, appreciate and aid the young man just entering the profession. We would strive to stimulate and enthuse the older ones, who tend to become engrossed in their individual work. We would be aggressive without being tyrannical, respecting the opinions of all, ignoring unessential differences, be united for the good of the public and give liberal recognition to all who sincerely labor for the general welfare. We would strive to create popular appreciation for the medical profession as a body. The world is big enough for us all, regardless of schools, if honesty is the moving force. There is enough truth for all to have a share, and no one should refuse to honor and respect truth, wherever found. Beneficial results based on scientific data will eventually conquer prejudice. The public press, that great giant of modern mentality which influences the actions of millions of people through the power of suggestion, and its facilities for repetition, would certainly join hands with us in the struggle for truth and public welfare.

The most important problem concerning the dignity and material welfare of the medical profession to-day is to convince men, women and children that we are striving to be helpful and protect them from the disasters following ignorance, superstition, incompetency and disease; that while we live by our work, we still sacrifice for their service much in our lives that men hold good; that we are seeking after medical truth, and desire the fellowship of all who are working for the same great object. If this were the fixed belief of the public our advice and desires would be speedily translated into laws regulating the profession and protecting the public health. We would not then plead in vain for securing the higher standard of education, morality and scientific attainments for the medical profession.

Our protests against the use of preservatives in food products would not be ignored by competent law-makers. The triumph of the profession in conquering pain, sepsis, smallpox, yellow fever, malaria, diphtheria, rabies; in robbing all of the infectious diseases of many of their terrors; in creating a substantial hope for many now tainted with the white plague; developing the astounding successes of modern surgery;

would be acclaimed the highest and most useful achievements of mankind.

The names of those who have deducted scientific facts and thus destroyed many enemies of mankind, and whose discoveries have added millions of years to the sum total of human life and ease, relieving also the agony of other millions, would then be proudly on every lip; as even now are the names of many generals of war and statesmen who have saved nations and built kingdoms, empires and republics, but in doing so have not added one moment of life to a single soul on earth.

The names of Caesar, Napoleon, Grant and Lee are trumpeted through the world, and will be a school topic as long as knowledge is taught; but for the ordinary educated citizen the names of Jenner, Morton, Koch, Pasteur and Reed will be buried in musty volumes of the library, from which they may occasionally be exhumed to point to a moral, or adorn a tale. The true medical man would rather a thousand times be the life-saving martyr Reed than some of the lauded statesmen of the present time.

The liberalizing influence that has been at work in the profession of late has elevated and broadened the ideas of the medical man. The things we all have in common are the things that make for the safety of the public and should, therefore, be defined, protected and disseminated. We are learning that truth needs not to be protected by majorities, but that it gains mastery by its own inheritance and persuasive power upon open and unprejudiced minds. Let us all open our minds to truth wherever found and, as the highest object of our professional lives strive to be bringers of peace to our fellow-men.

THE FUTURE POLICIES OF THE MEDICAL PROFESSION.*

ORATION ON MEDICINE

N. P. Wood, M.D.

INDEPENDENCE, MO.

Some one has said the efficiency of a nation depends upon the mental, physical and moral vigor of that nation. Then it behooves us to halt in the rush and push of commercial life and pause a moment in the progress of the age, to reflect on our future policies.

The future policies of the profession will doubtless be to undo some things now existing, which are detrimental to the citizens of our country, as well as hindrances to scientific progress and to the highest achievement of professional effort.

Some of the things to undo are: To regulate proprietary preparations; eliminate quacks and quackery; curb the growing tendency to commercialism in the profession; eliminate drug-store prescribing—the practice of some druggists who

* Delivered at the Fifty-third Annual Meeting of the Missouri State Medical Association, Hannibal, May 4, 1910.

borrow a doctor's prescription and hand it out at half professional price, thus jeopardizing the safety of the unfortunate victim, and bringing the doctor into undeservedly bad repute; and, furthermore, violating a statute;—to stop manslaughter in the form of criminal practice, so often reported in our larger cities; eliminate felony and graft, so habitually associated with quackery; exterminate "The Great American Fraud;" eliminate from the secular and religious press their fabulous and fraudulent advertisements; enlighten the people on the evils and dangers of these patent nostrums and the public will demand the press to discontinue advertising these dangerous, damnable patent frauds.

The only way to undo these unfortunate conditions is through legislation. And it is not possible to secure the required legislation until we create a sentiment in favor of these things; before we may expect to create this sentiment we must educate the people as well as some of the profession. When the people and the profession are properly and well educated concerning these unfortunate conditions, with all of their evils and crimes, a strong sentiment for better things will rapidly follow and a healthful legislation will be the natural product of this sentiment; and this legislation should be municipal, state and national. It is up to the medical profession now, as it has always been, to lead in this work of education and legislation; the enthusiastic and persevering efforts of the medical profession of the last quarter of a century are beginning to bear fruit in the form of some desirable legislation and enlightenment of the people.

When the scales fall from the eyes of the public, the people will begin to arouse from their lethargy to a keener appreciation of the necessity of better sanitation and of the evils and dangers of these patent frauds, of these quacks and quackery, of the various isms and fads so prevalent at this age and so detrimental to the health and morals of our people and the economic conditions of our country.

There has never been a time in the history of the world when there was such universal interest among the people for knowledge concerning the prevention of infectious diseases and better sanitary environment, as now. It behooves the medical profession, then, to put forth an extraordinary effort to disseminate this desirable knowledge of better sanitation and to make known the detriment and danger of these gigantic frauds. The sum of \$75,000,000 will be spent this year for patent medicines. But the taking of this money from the gullible people is the least consideration, the greater evil being thousands of drunkards and narcotic fiends, that these patent medicines have produced and are to-day producing, making an additional purchase price which will bring the monetary costs up into the billions of dollars, as the price paid at the altar of sacrifice

of our noble womanhood and manhood. It is to be hoped that our good temperance people and influential citizens will discontinue giving their testimonials concerning these narcotic mixtures. For these testimonials lead many, many people into drunkenness, opium, cocaine and other narcotic habits. Most of these testimonials are forgeries or frauds, some few of them have a smack of sincerity about them, and some are jokes. The testimonial of the tectotaler national representative or a United States senator in regard to the medicinal efficacy of peruna or vinegar bitters, or a minister of the Gospel placing his name under a testimonial to show the inspiring effect of Duffy's malt whisky are eloquent in their declaration of lamentable ignorance concerning the make-up of these diabolic mixtures.

Some things to do: Establish a uniform, high standard of education, both preliminary and medical; establish universal reciprocity, based on universal training; establish a well-organized board of health; for while we have some seven or eight bureaus of health in this country, their lack of harmony in action and non-efficiency in service demand a better organization and a more harmonious action. It is to be hoped that the Owen bill, now pending, will become a law, and bring out of the confusion of the past and present a thorough organization that shall reach from a secretary in the Cabinet, down through every state, county and hamlet. This bill should have the support of this Association, as well as of every medical association in the United States.

Senator Owen is entitled to the hearty endorsement and enthusiastic support, not only of the medical profession, but of every organization and every citizen in this country, for the establishment of a Department of Public Health. It is a step in the right direction, and will be the beginning of a complete revolution of the sanitary conditions of our land.

Enlarge and increase the number of our sanitariums for the treatment of infectious diseases, particularly for curable cases of tuberculosis; establish and maintain sufficient sanitariums to care for the incurable that they may have humane treatment in their latter days and at the same time be kept from scattering broadcast the infection from which they are soon to die.

Have separate buildings for infected persons in all our public institutions, including penitentiaries, hospitals, asylums, jail houses, school houses, etc.

Establish a permanent home for this Association, the State Board of Health, a state laboratory and a library to be built and maintained by the state.

Prevent the wholesale slaughter of humanity; every hour seventy-two Americans die; every twenty-four hours more than seventeen hundred die; each year the number of deaths almost equals the population of St. Louis; and most of these deaths are from diseases entirely preventable.

Education for many years has stimulated a lively interest in the profession, the aim at all times being to attain a more thorough literary and medical training. These efforts have been rewarded with a constant progress until to-day the world has better educated and better trained men than ever before.

But we have not yet reached the limit of our ambition; the medical colleges are rapidly connecting themselves with universities; all over the United States, as is now required by most of the eastern schools, will be required a university training before entering the medical college. While we would not depreciate the most extensive and thorough training in the sciences and arts, it is to be hoped that the university training will be so planned that the young man who contemplates a medical course will have his preliminary course directed with a view to his subsequent training. Thus, in our efforts to raise the standard, we will not use up so much of his vigor and energy before starting him upon the arduous duties of his professional life. We are all aware of the fact that the more extensive the learning and the better the training, the better equipped will the individual be for the work of his chosen profession and for his subsequent usefulness in the world. But the university course has grown so extensive that it is becoming a question whether the young man intending to adopt some profession should undertake the complete course, or whether he should select his course and so direct it as to make it commensurate with his subsequent work; thus he would finish his education before he had used up the energy and vigor of his young manhood. The duties are so arduous and extensive that we need men full of mental, physical and moral vigor to meet the demands of the age, both in the practice and the progress of medicine. A quarter of a century in the school-room is calculated to use up a great deal of the vigor of young manhood.

In conjunction with original research, prophylactic medicine offers the broadest field for the greatest progress in the medical world; therefore, more attention should, I believe, be given to teaching preventive medicine in our medical schools.

But to reach the highest results in sanitation we must educate the people and some of our professional brethren, for some practitioners of to-day are not taking that lively interest in this educational crusade which it is their privilege to assume. But when all the profession as well as the masses awake to the importance of this sanitary question the people will be more teachable and the teachers more energetic in their efforts. This training in "How to Live" should begin in the home and should run not only through the public schools, but through our entire educational system. The fact that about 3,000,000 people are ill each year in this country and 600,000 are dying annually from infectious diseases, diseases

which are almost, if not entirely, preventable, and the further fact that the economic loss to this nation amounts to many millions of dollars, should stimulate the American people, and particularly the medical world, to make a mighty effort toward educating the people on this very important question of prophylaxis, and thus create a sentiment in its favor. Only when a strong sentiment is created will we be able to get all the legislation we need, not before. When we get the needed legislation and the people are educated in sanitary science, we will be in position not only to curb tuberculosis, as well as many other infectious diseases, but to make it possible to prevent entirely their occurrence.

Establish a commission, which shall be executive, for the control of the eleemosynary institutions of our country; this commission ought to be non-political, selected on merit and exist as long as it does efficient service.

Establish universal reciprocity, allowing the right of practice in medicine and surgery to rest upon a diploma from a well-equipped, thorough and painstaking university faculty. This, I believe, would be a fairer and more accurate estimate of qualification than would be the most careful and painstaking examination of an examining board. But give the state boards authority to differentiate the thoroughly equipped and well-taught schools, just as the Supreme Court of Missouri has done. While we have at present a bureau of health, the future policies of the profession demand a department of health with a Secretary in the Cabinet. The effort now being made in the Senate for this department is indeed commendable, and should stimulate a lively effort in the profession, as well as among the people who have the health interest of the country at heart to accomplish this end. We should have medical inspection of schools. Between 400 and 500 cities and towns now have this medical inspection. It is, I believe, the policy of the profession to have a medical inspector for every school in the country, including not only those in the cities and large towns, but every village and country school. This system will be a means not only of protecting the children's physical and mental condition and conducing to their development into a higher type of womanhood and manhood, but will bring to the people a realization of the importance of cleaner living and better sanitary conditions in their homes and of their persons. Thus the children will grow up, not only under better sanitary conditions, but with better physical and mental vigor, which will qualify them for higher citizenship and broader fields of usefulness in the world. So if we are to attain unto our highest ideals, not only must we train the young physician thoroughly in the art of surgery and the science of medicine, but we must likewise educate the masses in sanitary science. It is our duty as medical men to disseminate this knowledge among the people of our re-

spective states and urge them to catch the sanitary spirit so prevalent in many parts of the civilized world.

Impress upon them the fact that the mighty effort now being made for prevention of tuberculosis will so improve the sanitary conditions that many other infectious diseases will be prevented, and 600,000 or more deaths accruing each year will be quickly and greatly reduced. The longevity of the race will be proportionately lengthened and the morbidity and mortality will be rapidly reduced until eventually they will be almost, if not entirely, eliminated from the nomenclature of medicine.

Temperance, I believe, should claim the attention of the profession. I use the word in its broadest sense, believing the profession recognizes the lamentable fact that there are other indulgences and excesses that are doing as much or more toward the degeneracy of the race than the use of narcotics. Whether or not state-wide prohibition is the best thing for the people and the country, it is the feeling of the profession, I believe, that the people should be taught that divine injunction, "Be temperate in all things;" be taught that moderation in all the necessities, pleasures and luxuries of life is necessary to the highest mental, physical and moral development. We should never cease our efforts to obtain legislation that will prevent the marriage of idiots, epileptics, consumptives and those suffering from venereal diseases, letting every marriage license be accompanied by a physician's certificate of a sound body and mind. This should also include the inebriate and the degenerate resulting from immoral excesses.

And the two greatest fields in which the future doctor may work will be original research and prophylactic medicine. In the last third of a century original work in the profession has astonished the civilized world. The discovery of the cholera germ, the T. B., the typhoid, the Klebs-Loeffler which specified for some, and the discovery of means of transmission of yellow fever and malaria, etc., are living monuments of the noble work of these men. These heroes in original research, with their achievements, will flash down the centuries, existing as great luminaries of splendor in the scientific world.

Prophylactic medicine offers the broadest field for beneficent service to humanity. The highest duty of the internist will soon be to teach his clientele how to keep well rather than how to get well. If as much time, energy and money were spent in the prevention of the disease as is spent in trying to cure it we would note results that would mark the greatest stride in the progress of modern medicine.

As the years come and go original research is giving us more and more knowledge of the etiology and pathology of disease, and our laboratories are occasionally handing out a specific for the

treatment of some of them. And I believe we have a right to expect much in the near future from serum therapy.

There are 600,000 people dying in this country each year and 3,000,000 are annually sick from these preventable diseases at a cost of millions of dollars to this nation. Yet the government is spending \$12,000,000 annually for the protection of trees and other plants and so little for the protection of the health and lives of the 80,000,000 people.

When these facts are laid on the minds of the people and the law-makers of our land, surely a liberal response will come both in legislation and appropriation.

Our present attainment in the profession has been at the cost of much labor and sacrifice of medical heroes. Lister, Koch, Klebs, Loeffler, Jennings, Lazear and others have given their lifework and some their lives, for the benefit of the people. Their only inheritance is their achievements and their benediction to the world. But the glory of their achievements will go flashing down the ages as everlasting monuments to their efficient services to humanity. The only possible way of realizing our highest ideals is through legislation, and then only indirectly, for before it is possible to get this desired legislation it is necessary to enlighten the people. When this is done, as it is rapidly being done, we will create a sentiment in favor of the righteous demands of the profession, and this sentiment will result in healthful legislation, following which will be the happy realization of our future policies.

Seek an appropriation commensurate with the needs of the health condition of our country. Under proper enlightenment of the people and energetic efforts with our law-makers, both state and national, we ought to be able to procure an appropriation at least equal to that made annually for the protection of vegetable life.

A Congress that appropriates \$12,000,000 annually for protection of trees and plants ought to be persuaded to appropriate the necessary funds for the protection of the 80,000,000 human lives in the United States.

The future policies of the profession are to do in the future, as in the past, everything in our power to elevate humanity, to bring about the highest possible physical, mental and moral development. Perfect the sanitary conditions of our country, eliminate quacks and quackery, fakes and fake institutions, lengthen longevity of the human race, and increase the current of happiness and usefulness that may flow through the lives of the people.

Finally, when we have realized our loftiest aspirations, when the medical profession has reached the zenith of her glory, when she has merged into the effulgent sunlight of scientific perfection, may it be that the Missouri State Medical Association has been an important factor in bringing about these glorious policies.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

JULY, 1910

EDITORIALS

THE SEVENTH VOLUME OF THE JOURNAL.

With this issue, the beginning of the seventh volume of the official organ of the Association, the physical make-up of THE JOURNAL has been changed. This step was decided upon by the Publication Committee and the Executive Committee after a very careful and close study of the conditions attending the publication of THE JOURNAL by the Association, the sentiment favoring this change in the management of THE JOURNAL being unanimous in both committees. The Publication Committee hopes the members will be pleased with the appearance of THE JOURNAL in its new form.

THE ST. LOUIS SESSION OF THE AMERICAN MEDICAL ASSOCIATION.

The sixty-first annual meeting of the American Medical Association closed one of the most successful sessions in its history on June 10.

Our guests were loud in their praise of the arrangements for the meeting and the completeness of the detail for the transaction of the work of the various sections, the Scientific Exhibit and the House of Delegates.

Governor Hadley, in his address of welcome, departed far from the beaten path of such occasions and showed a familiarity with the aims and objects of the medical profession and sympathy with these purposes that called forth loud applause and astonished our visiting members. The governor's address cannot, with justice to its eloquence and intense interest to the members of our Association, be epitomized or abstracted, and therefore we shall publish it in full in an early issue.

The entertainments arranged for the pleasure of the members were marred somewhat by the unusual and most un-June-like weather, for it

rained almost every day during the session. Notwithstanding this dampening influence, the President's reception was well attended and all the other entertainments were pleasing and satisfying to those who braved the elements. The scientific sessions were well up to the standard of previous meetings, but the department which evoked the most praise was the Scientific Exhibit, and especially the exhibit of the St. Louis Medical History Club. The collection of books, prints and manuscripts of a medical nature was visited by a great many members and received general praise. A certificate of honor was awarded this exhibit. The other St. Louis exhibitors in the Scientific Exhibit who were awarded certificates of honor were: St. Louis University, St. Louis City Hospital and Dr. J. J. Houwink.

To many of the members from Missouri the deliberations of the House of Delegates were in the nature of a revelation. Those who doubted the devotion of the workers in this body to the best interests of the Association and the profession were most agreeably astonished when they saw how unselfishly and vigorously the members of the House labored to dispose of the numerous and important questions that came before the delegates for solution.

For president-elect, Dr. John B. Murphy, of Chicago, received the majority of votes, although Dr. Abraham Jacobi was well supported. The vice-presidents are: Dr. E. E. Montgomery, Philadelphia; Dr. R. C. Coffey, Portland, Ore.; Dr. W. G. Moore, St. Louis; Dr. H. L. E. Johnson, Washington, D. C.

When it came to the election of the secretary the resignation of Dr. Simmons was not accepted. Dr. Chase, of Texas, declared that the best interest of the Association would be subserved by retaining Dr. Simmons as secretary, and renominated him for the position. This was seconded by state after state, finally culminating in a nomination by acclamation and the casting of the vote of election by the president.

Three trustees are elected each year, and this year Missouri obtained representation on the board through the election of Dr. Frank J. Lutz, of St. Louis.

From every point of view the St. Louis session of the American Medical Association was a success. Our State Association has been brought into closer touch with the work of the larger organization, and the future will see a much more

generous support of that body by the Missouri State Medical Association than ever was accorded it in the past.

THE MEDICAL DEPARTMENT OF THE STATE UNIVERSITY.

One of the most important resolutions adopted at the Hannibal meeting of the State Association last May was introduced by Dr. E. H. Miller, calling upon the Board of Curators to advance the medical department of the State University in keeping with the responsibilities of the fifth state of the Union and urging upon the Legislature the appropriation of funds for this purpose.

The resolution was referred to the Committee on Public Policy and Legislation, with the request that the Committee act with the Board of Curators to accomplish the end desired. Our committee has communicated with the Board of Curators, but the reply received from that body must be considered very unsatisfactory.

It has been the privilege of the physicians of this state and of the organized medical profession to assist the Board of Curators in their biannual attacks upon the state treasury, and medical men have always done this very cheerfully in the past. The abandonment of the last two years of the medical curriculum at Columbia by the Board of Curators aroused new interest of the medical men in the State University for, whilst the wisdom of this act cannot be questioned, and will not be questioned, under existing conditions, by the progressive physicians of the state, the constitution of the state provides for the maintenance of a medical school, complete in all of its departments, at the State University.

The Missouri State Medical Association would like to know whether the Board of Curators has any plans for carrying out this provision of the constitution of the state for educating medical students at the university, and for what purpose the Association is to assist in securing this appropriation for the university. Is it not about time that publicity concerning the State University's medical department should be encouraged by the Board of Curators? To go before the Legislature at its next session and ask for an appropriation of money for the medical department, without announcing any definite or fixed plans for the use of the money so appropriated, will not be encour-

aged to a very considerable extent by the medical men. We have two medical men on the Board of Curators, members of this Association, and to them we would suggest that the profession be informed concerning the future of the State University's medical department, around which there is now hanging an impenetrable veil of secrecy and mystery. If the curators will inform the doctors what the medical school is endeavoring to do they will have the support of the organized profession. If the profession should not agree with the plans of the board this cooperation would at least give the profession a chance to discuss the situation, out of which, doubtless, much good would come for the cause.

MISSOURI ASSOCIATION FOR THE PREVENTION OF BLINDNESS.

Through the untiring efforts of Dr. F. Park Lewis, of Buffalo, the subject of the prevention of blindness, especially that due to ophthalmia neonatorum, has been brought forcibly to the attention of medical men throughout the United States. When it is considered that probably 10 per cent. of all blind have become so as a direct result of this preventable disease, and that 30 per cent. more are blind from such preventable causes as wood alcohol, amblyopia, trachoma, industrial accidents, etc., it becomes clear that the question is not only of medical but also of social importance.

Recognition of this fact has led the trustees of the Sage Foundation to create a Committee on the Prevention of Blindness, its present duty being to stimulate interest in the subject in the different states, and thus lead to the formation of state societies for the prevention of blindness. Dr. Samuel Eliot, secretary of the committee, has just effected such organizations in Kentucky and Missouri. The Missouri organization, known as the "Missouri Association for the Prevention of Blindness," has just adopted a constitution, and elected temporary officers, as follows: Chairman, Dr. John Green, Jr.; secretary, Mr. Philip Seman; treasurer, Dr. Clarence Loeb. The society has secured the loan of the exhibit of the New York Association for the Blind, displayed in the Scientific Exhibit during the recent meeting of the American Medical Association.

THE AMERICAN MEDICAL COLLEGE.

The report which the committee of the Carnegie Foundation for the Advancement of Teaching published concerning the medical colleges of the United States and Canada was discussed during the recent meeting of the American Medical Association in St. Louis by the public press, as well as those interested in medical education, in a manner and in a tone which showed conclusively that "the foundation had been shaken." The adverse criticism of the report was directed mainly to the conclusions reached by the author, although up to the present time no one had undertaken to controvert the facts as set forth in the report.

Those concerned in advancing medical teaching and in the education of competent physicians confidently expect that the publication of the conditions existing in the medical schools of this state will result in renewed effort to improve the teaching facilities of our colleges. The low standard set by the State Board of Health of Missouri should long since have been surpassed by the schools, and it is nothing to boast of that a medical college is conducted in accordance with the standard of the State Board of Health.

Following in the wake of the Carnegie report comes the announcement that the American Medical College of St. Louis, hitherto an eclectic institution, had been converted into an "allopathic school." Up to the end of the present collegiate year some of the professors in this sectarian school were graduates of the regular schools, practitioners of medicine without sectarian affixes and members of the St. Louis Medical Society. It appears from the newspapers (St. Louis *Globe-Democrat*, June 15) that the stock of this college has been in the possession of an allopathic member of the faculty for about two years, who added to his faculty allopathic members until they had control of the institution. Recently this eclectic school has been joined by physicians who formerly were members of other faculties. A new "regular" college is to be made of the "extinguished" eclectic school. It is the more surprising that such a step should be taken at this time, for the State Association at its last meeting in Hannibal adopted a strong resolution to discourage the establishment of unendowed medical schools in this state. The resolution reads:

Resolved, That it is contrary to the best interests of both the public and the profession of medicine to establish at the present time any new medical college in Missouri, unless said college is substantially endowed or connected with some endowed university.

We feel confident that but few will dissent from the opinion that the establishment of a new medical college is unnecessary and uncalled for. So far as appears upon the surface the school will have neither the means for proper equipment nor the clinical facilities which should be offered in a medical college conducted along modern lines.

The coalition of members of the organized medical profession with sectarianism was condemned in unmistakable terms by resolutions adopted at the last meeting of the State Medical Association, and we assume that the St. Louis Medical Society will, at the proper time, take cognizance of the relationship which has been borne in the past by some of its members with sectarian medicine, and also of the conduct of the new associates of the eclectic school.

Missouri State Medical Association

**Fifty-Third Annual Meeting, held at Hannibal, Mo.
May 3, 4 and 5, 1910**

MINUTES OF THE HOUSE OF DELEGATES.

FIRST DAY—TUESDAY, MAY 3.

The House of Delegates was called to order by the President, Dr. Tinsley Brown, at 9:40 a. m., and the following delegates responded to roll call:

COUNTY.	DELEGATE.	ADDRESS.
Adair	E. C. Callison,	Kirksville.
Audrain	J. G. Moore,	Mexico.
Boone	F. G. Nifong,	Columbia.
Caldwell	C. L. Woolsey,	Braymer.
Cass	H. S. Crawford,	Harrisonville.
Clark	W. B. Sisson,	Kahoka.
Clay	C. H. Suddarth,	Smithville.
Clinton	F. H. Fulton,	Plattsburg.
Daviess	H. E. Songer,	Jamesport.
Dent	J. C. Welch,	Salem.
Gas. Maries-Osage	John W. Burgess,	Belle.
Howard	Joel Y. Hume,	Armstrong.
Jackson	W. J. Frick,	Kansas City.
Jackson	C. C. Conover,	Kansas City.
Jackson	Ernest Robinson,	Kansas City.
Johnson	D. E. Shy,	Knobnoster.
Laclede	J. A. McComb,	Lebanon.
Lewis	J. C. Brown,	Lewistown.
Linn	F. W. Burke,	Laclede.
Macon	A. B. Miller,	Macon.
Madison	S. C. Slaughter,	Fredericktown.
Marion	T. A. Roselle,	Palmyra.
Miller	W. S. Allee,	Olean.
Montgomery	C. A. Revelle,	New Florence.
New Madrid	J. H. Timberman,	Marston.
Nodaway	F. R. Anthony,	Maryville.
Pettis	D. P. Dyer,	Sedalia.
Pike	C. L. Bankhead,	Paynesville.

Platte	J. J. Carter, Weston.
Ralls	T. J. Downing, New London.
Saline	F. A. Howard, Slater.
St. Charles	J. R. Mudd, St. Charles.
St. Joseph-Buchanan	A. B. McGlothlan, St. Joseph.
St. Joseph-Buchanan	C. A. Good, St. Joseph.
St. Louis County	R. D. Moore, Central.
St. Louis Med. Soc.	Louis Rassieur, St. Louis.
St. Louis Med. Soc.	J. H. Amerland, St. Louis.
St. Louis Med. Soc.	Willard Bartlett, St. Louis.
St. Louis Med. Soc.	Vilray P. Blair, St. Louis.
St. Louis Med. Soc.	George C. Crandall, St. Louis.
St. Louis Med. Soc.	William W. Graves, St. Louis.
St. Louis Med. Soc.	Louis H. Hempleman, St. Louis.
St. Louis Med. Soc.	Joseph Grindon, St. Louis.
St. Louis Med. Soc.	Thomas A. Hopkins, St. Louis.
St. Louis Med. Soc.	W. C. G. Kirchner, St. Louis.
Scotland	G. F. Foster, Memphis.
Stoddard	H. La Rue, Dexter.
Sullivan	E. S. Porter, Milan.
Taney	Guy B. Mitchell, Forsyth.
Vernon	H. C. Jarvis, Schell City.

On motion the reading of the minutes of the previous meeting was dispensed with.

Dr. A. H. Madry was called to the chair while the President read his message.

To the Members of the House of Delegates of the Missouri State Medical Association:

It becomes my duty as President to make some recommendations which may, in my opinion, enable you to enact some measures to strengthen the work of our Association.

During my term of office I have made visits to a number of the County Medical Societies in different parts of the state. The majority of the meetings were open to the public, for the purpose of instructing the people in reference to public health questions. As a rule, the meetings were well attended and the addresses enthusiastically received. I would advise that steps be taken to influence legislation to promote efficiency in public health measures, for we cannot expect to succeed unless the citizen is educated to the full purport of the great problem of sanitation. The councilor of each district should be required to arrange for at least one meeting in each county in his district. Few of the councilors responded to my general circular letter sent to each shortly after I assumed my office.

An active, live secretary is what makes a good county medical society. The Councilor should be no less active. The Committee on Nominations should select those men who will promise to do this work in a whole-hearted manner.

I suggest that the different standing committees should be called together by the chairman of the committee soon after appointment, for thereby they would be in better condition to do efficient work. During my term of office some of the committees have had no meetings, and consequently did not respond to the Secretary's repeated calls for reports.

I recommend that our Council on Medical Education and the Committee on Public Policy and Legislation be instructed to cooperate with each

other in securing such legislation from the law-making powers of this state as will place the medical department of our state university in a position equal to any of the large universities in this great republic. Toward the accomplishment of this end, I recommend that the Association endorse the proposed constitutional amendment for the levying of a special tax of three mills in support of the state university. Missouri is the fifth state in the Union in population and her resources are so varied that, in many respects, she leads all other states. The day of the private medical college is, in a manner, past, and we must look to the state university for the education of a large proportion of our medical students in future. We are so situated that by right we should become the center of medical education for the Middle West, and probably for the entire West. We have three great cities that can furnish clinical material for medical training. Some of our northern states are outclassing us in medical education. The state of Minnesota last year, by legislative act, appropriated \$500,000 for medical education in the department of medicine. Our own state legislature appropriated \$118,740.68 for a deficiency of the previous two years, and \$451,200 for the state university for its entire maintenance and support for two years. Of this amount, I notice among the items: "For medical department, \$3,000, and for medical instruction \$10,000." The time is now at hand to make our state first among the states in medical education. The last legislature gave us some needed laws by passing a vital statistics law. The regular medical profession secured the enactment of the law and therefore should be entrusted with the duty of carrying it into effect. Men who have failed to uphold the dignity of our noble profession should not be made the guardians of its good name.

While some laws were enacted enlarging the powers of the State Board of Health in regulating the practice of medicine and the demeanor of physicians, the matter of public health had scarcely any support. The amount of \$3,000 was appropriated for the prevention of contagious diseases in man. The sum of \$22,000 was appropriated for the suppression of disease in live stock, and the sum of \$200,000 for the preservation of game and fish. How much more logical the reversal of the amounts of these appropriations would have been to the welfare of the inhabitants of this state.

Since the protection of our members against civil suits for malpractice is one of the most important features of our organization, I would recommend that the sum of \$1,000 be set aside for the defense fund and added to whatever amount may remain in the fund from the appropriation of last year. By this means we can in time accumulate for defense purposes a sum that will be sufficient to meet all emergencies that

may arise for the proper defense of our members against unjust suits for malpractice.

I have been consulted by a number of the members of our association in reference to the manner of conducting the scientific work at our annual meetings. The consensus of opinion is that we should have more general session work.

I see much to recommend the old plan, when all the work was done in general session; or something like the plan of this meeting, if adopted for future meetings, might be yet more advantageous.

I recommend that the Secretary of this Association be elected each year as one of the delegates to the American Medical Association in order that he may be at all times in close touch with that large body of medical workers of which our Association is an integral part.

The efforts of the American Medical Association during the past few years, looking toward the establishment of a department of public health, with a secretary in the President's Cabinet, has, during the present term of Congress, become crystallized by the introduction in the Senate, by Senator Robert L. Owen, of Oklahoma, of a bill to establish such a department. I earnestly recommend that this Association adopt resolutions of approval of Senator Owen's action, and transmit a copy thereof to him and to our senators and representatives in Congress.

I trust that you will urge the county medical societies to adopt the post-graduate course as far as possible.

On motion, the President's message was referred to the Judicial Council.

President Brown resumed the chair.

The report of the Committee on Medical Education was read by the Chairman, Dr. B. M. Hypes. (See page 28).

Dr. Dorsett moved that the report be received. Seconded and carried.

Dr. A. H. Madry, Aurora, said that this was the best report on medical education that he had ever heard. It touched every phase of the physician's life and every point of medical education.

Dr. W. S. Allee, Olcan, moved that the House consider the recommendations in the report. Seconded.

Dr. F. J. Lutz, St. Louis, said he gathered from the report that the preliminary education, as evidenced by the high school diploma, was not always satisfactory since one of the difficulties, according to the report, was that the high school diplomas were of varying value, representing various standards of requirements. He thought Dr. Hypes' opinion in this matter was erroneous. If there was any difficulty about the high school diploma being acceptable, that rested with the medical schools and not with the law. The law stated that the matriculant must be possessed of an accredited high school diploma. An accredited high school diploma was defined so specifically that the medical schools could make no mistake

in understanding what was meant. An accredited high school was one that articulated with the state university and if the medical schools would see to it that the high school diplomas which they accepted were not issued by non-articulating schools, the difficulty of elevating the standard of medicine would be, to that extent, removed. No one could be more desirous than he to advance the preliminary requirements for medical education, but the preliminary education must be in proportion to our environment. It would not do to set the standard of preliminary education so high that it would be impossible for young men to enter the schools. Many of the medical schools had such requirements as were the equal of the minimum requirements laid down by the State Board of Health. When those requirements were made it could not have been the intention to make it difficult for a medical school to exist, but the requirements were made in accordance with our surroundings.

One other point was the examination by the State Board of Health; that examination must be, under the law, absolutely practical. If the committee's suggestion to have an examination at the end of the second year were adopted, it would mean that the student who passed such an examination would feel that he need not know anything about those studies and all that was behind him. If anatomy and physiology were not studied during the third and fourth years the chances were that the student would know little about those subjects. Under present conditions in this state nothing more could be done than to have a written examination. Dr. Hypes had said that this was the easiest examination, but the frequent failures would indicate that it was anything but easy. Until the medical schools had control of hospitals where the examination could be conducted, he feared that the less efficient examination, the written examination, would be all that could be given. Dr. Lutz said he would, of course, like an examination for the young men in the clinical departments, but when it came to examining one hundred and fifty men that would be found quite a task. It would take six weeks or two months, at least. In Germany it took from six weeks to three months to pass the examination for the right to practice medicine. In England also it took several weeks. In this country possibly everything was not done just right, but it did seem to him that many things were done in a very practical way. If there were institutions for these examinations, and if there was an appropriation sufficient to pay the examiners at a reasonable rate, it would be different, but at the rate of \$10 a day a man would hesitate to give up six weeks or two months in conducting this work; yet he knew of nothing that contributed more in bringing the matter properly before the medical profession than the work Dr. Hypes had been doing, and he fully appreciated the value of that work.

Dr. Elam, St. Joseph, said there was one point he wanted to discuss, and that was the question of examination of students at the end of their second year. He believed Dr. Lutz was wrong in his view. Such an examination would enable the State Board of Health to eliminate the incompetent man at the end of his second year. It was unfair to allow a man to take four years of work, when it was evident in two years that he would be not be able to pass any State Board examination at the end of the fourth year. The State Board of Health could eliminate the incompetents right at that point, and say to those men who were insufficiently qualified: "You will either have to make this up, or you are not qualified to take up the practice of medicine." He believed this would lessen in great measure the number of incompetent graduates from medical colleges, and would save much time and money for the incompetent students.

Dr. Lutz asked, why not let the colleges stop them?

Dr. Elam replied that that would never happen.

Dr. Ernest Robinson, Kansas City, thought they were attempting to place on the State Board of Health the duties of the medical school. It was only through the medical schools that the board of health could control the subject of medical education. As had already been said, an attempt to examine a man at the end of his first or second year was tantamount to saying, "Hurry up and let us get this off before you forget it." If anything was necessary it was, that a man should remember his knowledge. Recently an effort had been made to establish a laboratory at Jefferson City where examinations could be held. In time an effort will be made to carry on and maintain laboratory work.

Dr. A. H. Hamel, St. Louis, referred to the technical difficulty in regard to the examination of students at the end of the second year. The statement had been made that this would relieve the schools of responsibility and place the responsibility for eliminating these students on the state board of health. Every medical school that received a charter was a medical school, but it devolved upon the State Board of Health to pass upon the question as to whether that institution was reputable or not reputable. If the system of examining students at the end of the second year were adopted it would compel the state boards to recognize students from all schools, even those not now recognized as reputable by the state board of health.

Dr. Hypes said that it was farthest from his mind, or of anyone connected with the committee, to criticize the medical colleges of Missouri, or the work of the State Board of Health, or anyone mentioned in the report. All had done well; especially did they owe a great debt to the work of the State Board of Health during

the past three or four years. It was a recognized fact that it was the State Board of Health that had protected the people and had protected the profession. All knew what the conditions were ten years ago, when colleges turned out doctors who registered on their diploma, and there was no redress until the law made students subject to examination after they had left college. A diploma was not worth the paper it was written on, unless it was from a recognized medical college.

He understood Dr. Lutz to say that Missouri was protected by the statutes as to the character of the high school diplomas. It was true that the law of Missouri stated that every applicant for matriculation at a medical college must present a high school diploma from an accredited high school, but there was added the statement that in lieu of this diploma he must pass an equivalent examination; and all had seen what kind of men passed that examination. Men from the grammar school, after a little preparation of two or three months, would pass such an examination; but Missouri was not the only state where such conditions existed. In some states they had no preliminary requirements, and the preliminary requirements varied all through the country according to the different ideas of the different state boards. What were the conditions twenty years ago? There were medical schools all over this country with a two years' course of twenty or twenty-one weeks. After a two years' course of twenty weeks a man was graduated and allowed to practice medicine. A few schools had a three years' course, and finally all of the schools adopted a three years' course, and the colleges required to have the three years' course. But who did it? It was not the colleges, it was the people who demanded better education. Then later a preliminary high school course was required.

Before the preliminary high school requirement was demanded, almost 50 per cent. of the graduates failed. Now only 15 per cent. of the men failed. Why? Because they had a high school education. Dr. Lutz had said that there was no time for such an examination as the committee had recommended, and that they could not afford to give up their time for such an examination, as the committee had recommended, and that they could not afford to give up their time at a \$10 rate. The point was that these men should be paid better. The people should understand that the physician should be paid for his specific knowledge; they could then give their time to it and make all the requirements necessary. Indiana had tried this method, so had Ohio, Michigan and the Dakotas, and everyone came up with the staunchest support of the method. It was only a means of distinguishing between the educated student and the one who had hired someone to cram him for examina-

tion. Not a single medical college with a graded course but examined those students at the end of the second year and passed them, and the other examinations were made at a subsequent time, and they were not allowed to go on to the next year until those branches had been passed. This freed the graduate from much anxiety and annoyance.

How many of the members present could pass an examination on anatomy or physiology? Yet when just out of school there was no difficulty about it. Some one had spoken about the laboratory examination, and had referred to the State laboratory. Every city in the State had a laboratory and every one of them would be thrown open to the board of health with permission to bring students to the laboratory and allow them to use the apparatus in taking their examination. This was done in other States without any objection whatever. As to the clinical examination, he knew from his own experience as a teacher of obstetrics the value of that method. Every man who passed his final examination in obstetrics got five per cent. on his written examination and five per cent. for performing pelvimetry, for determining the position of the child on a manikin and explaining the operation and technique of version, and the operation and technique of the application of the forceps. Half of his credit depended upon what he did with the manikin.

Dr. Hypes then introduced the following resolution:

Resolved, That it is contrary to the best interests of both the public and the profession of medicine to establish, at the present time, any new medical college in Missouri, unless said college is substantially endowed or connected with some endowed university.

On motion the resolution was adopted.

Dr. Hypes offered the following:

Resolved, That the time has arrived in the furtherance of medical education and the uplifting of the profession when, in addition to the present minimum requirements for graduation in medicine, an advanced requirement, consisting of one year devoted to the study of chemistry, physics and biology, should be added.

On motion the resolution was adopted.

Dr. Hypes offered another:

Resolved, That the present method of examining applicants for a state license to practice medicine, which has been in vogue for many years by our state examining boards, is unsatisfactory, in that it is confined to a written examination alone.

Resolved, That our State Examining Board be requested to add both laboratory and clinical methods in future examinations.

Resolved, That they also be requested to consider the feasibility of giving a divided examination at the close of the second school year.

Dr. Henry Schwarz, St. Louis, was heartily in favor of the first part of that resolution, but opposed the second part.

Dr. Green, Jr., St. Louis, moved that the resolution be considered in sections. Seconded and carried.

The first portion of the resolution was read.

Moved by Dr. Green, seconded by Dr. Schwarz that it be adopted. The motion carried.

The last part of the resolution, referring to the feasibility of giving a divided examination at the end of the second school year was then read.

Dr. Joseph Grindon, St. Louis, stated that it was merely a request by the Committee that the board consider the feasibility of such action. This seemed to him a very innocent sort of request, and he thought that they might risk its adoption.

Dr. Hypes said that portion of the resolution was presented at the special request of Dr. Jackson, of State university.

Dr. Lutz said that would exactly fit the State university, now that only the first two years' work was being done there.

On motion this portion of the resolution was adopted.

The report of the Committee on Public Policy and Legislation was read by the Chairman, Dr. Robert M. Funkhouser, St. Louis. (See page 26).

Dr. Grindon stated that the report of the committee had been printed and that the members were familiar with it; he suggested that the House consider the report in sections, by title.

Following the reading of the Report of the Committee on Public Policy and Legislation, it was moved and seconded that the report be received. Carried.

Dr. A. H. Madry introduced the following resolution:

Resolved, That a vote of thanks be tendered Senator Robert L. Owen for the interest he has shown in public health through the introduction in the Senate of the United States of Senate Bill No. 6049, and that we telegraph him of this action.

The resolution was adopted.

Dr. Funkhouser introduced the following resolutions:

WHEREAS, The ravages of venereal diseases can no longer be ignored, and the time is ripe for the education of the public; therefore be it

Resolved, That all county, district and other local societies be, and they are hereby, requested to hold annually one or more open meetings and the public invited to participate in the proceedings which shall be devoted to a discussion of the nature and prevention of the "black plague" (venereal disease).

On motion the resolution was adopted.

WHEREAS, Public opinion has become much aroused over food adulteration; and

WHEREAS, Certain preservatives make possible the use of foods that have begun to decay; be it therefore

Resolved, That the Missouri State Medical Association in convention assembled at Hannibal, declares that it condemns the use, as food preservatives, of benzoic, boric and salicylic acids and their compounds, and all other chemicals, since, in the opinion of this Association, such preservatives are unnecessary and are detrimental to the public health; and, be it further

Resolved, That this Association is opposed to adulteration of food of any kind whatsoever; and be it further

Resolved, That this Association endorse the stand taken by the American Medical Association in its fight against food adulteration, and endorse its action in appealing to Congress for immediate amendment of the National Pure Food and Drugs Act; and be it further

Resolved, That this Association endorse the stand taken by Dr. Harvey W. Wiley in his campaign for pure food and pure food legislation; and be it further

Resolved, That this Association commend the daily newspapers and individuals who have taken a stand against artificial food preservatives and give them added encouragement to continue their fight.

On motion the resolutions were adopted.

It was moved by Dr. Lutz that the Secretary of the State Association be instructed to bring to the attention of the public press these resolutions adopted by the Association. He felt that to keep these resolutions among ourselves would be to limit their power for good.

The motion was seconded and carried.

Report of the Committee on Scientific Work was read by Chairman, Dr. Franklin E. Murphy. (See page 25).

The report was adopted.

Dr. W. B. Dorsett read the report of Committee on Publication. On motion the report was referred to the Judicial Council. (See page 25).

Dr. F. J. Lutz read the Report of the Defense Committee, as follows:

REPORT OF THE DEFENSE COMMITTEE.

During the past year the Defense Committee has had before it for adjudication thirteen cases. Of these, five are as yet unadjudicated; the others have been disposed of in a satisfactory manner. In none of the cases has a physician been compelled to pay damages.

The treasury of the Association has been drawn upon for legal defense, up to the present time, to the amount of \$100, but this has been accomplished only by the most rigid supervision on the part of the committee. The members of the Association are, however, beginning to understand that the fund set aside for defense purposes is a small one, and cannot be drawn upon for the benefit of one to the exclusion of all others. The regulations which committee has found it necessary to make in order to do the work systematically and effectively are being complied with for the most part. It cannot be emphasized too strongly that the funds placed at the disposal of the Defense Committee by this Association do not warrant the expenditure of money, except upon agreements made in advance through the committee, and not through the individual members, except by the instruction and with the consent of the committee.

Your committee would respectfully recommend to the Council that an appropriation of \$1,000 be added to the amount which may remain in the treasury to the credit of the Defense Fund at the expiration of the fiscal year.

Respectfully submitted,

F. J. LUTZ.
W. B. DORSETT.
JOSEPH GRINDON.

On motion the report was received and referred to the Judicial Council.

Dr. Lutz offered the following resolution:

Resolved, That \$1,000 be added to the Defense Fund as it now stands upon the books of the Treasurer.

On motion the resolution was adopted.

Dr. Lutz introduced the following resolution:

WHEREAS, The principles of ethics of the American Medical Association make the most liberal provision for admitting to fellowship in the county medical societies of this state, physicians who have been educated in sectarian schools and who practice with therapeutic agents different from those of scientific medicine; and

WHEREAS, The condition for the admission of such physicians as are legally qualified is, that they discontinue to hold themselves out to the public as practitioners of sectarian medicine; and

WHEREAS, It is contrary to the spirit and letter of the principles of ethics for such practitioners to be engaged in perpetuating the ideas of sectarian medicine by associating themselves with sectarian medical schools and with hospitals conducted ostensibly on sectarian principles, and still more reprehensible for regular physicians to act as instructors in sectarian schools of medicine; therefore be it

Resolved, That the component county medical societies of this Association are instructed to purge their rolls of all members who hold themselves out publicly to be members of sectarian schools of medicine, or who may act as teachers in such schools, or who may be connected with, or hold official positions in, hospitals conducted along sectarian lines.

Dr. Henry Schwarz, St. Louis, asked whether members so engaged would be given a chance to sever their connections, and if they severed those attachments whether they would be permitted to retain good standing in the society.

Dr. Lutz answered in the affirmative.

On motion the resolution was adopted.

The Committee on Medical Expert Testimony failed to report, and on motion the committee was given further time.

The Secretary read his report and on motion the report was received. (See page 24).

The treasurer read his report. On motion the report was referred to the Judicial Council.

The President announced the Nominating Committee as follows:

Dr. W. S. Allee, Eighteenth District; Dr. J. H. Timberman, Twenty-third District; Dr. F. H. Fulton, Twelfth District; Dr. W. J. Frick, Thirteenth District; Dr. Joseph Grindon, Twentieth District; Dr. Frank Nifong, Ninth District; Dr. F. B. McGlothlan, Second District; Dr. P. S. Shy, Fifteenth District; Dr. E. C. Callison, Sixth District; Dr. J. A. McComb, Twenty-sixth District.

The election of delegates to the American Medical Association was next in order, and the following were nominated:

Dr. Elam, St. Joseph, nominated Dr. C. R. Woodson of Buchanan County.

Dr. F. J. Lutz, St. Louis, said that in view of the excellent work done by the Secretary, he thought it but just to nominate Dr. McAlester as a delegate.

J. Franklin Weleh nominated Dr. Brummall of Salisbury.

Moved by Dr. Lutz that the by-laws be suspended and that the President be authorized to cast the vote of the House of Delegates for the three gentlemen nominated. Seconded and carried.

The Committee on Amendments to the Constitution and By-laws had no report to make.

Dr. Joseph Grindon, St. Louis, said this was a very important matter, and that it could not be properly attended to by a few men. He thought the work should be codified into a complete whole and put into better shape; for that reason he had moved a year ago that such a committee be appointed. The committee was appointed and instructed to report through *THE JOURNAL* at least two months before the meeting of the Association, but nothing of that sort had appeared in *THE JOURNAL*. He now moved that a committee of three be appointed by the Chair to revise the Constitution and By-laws, and to publish proposed changes in *THE JOURNAL* two months before the next meeting in 1911.

The motion was seconded and carried.

Dr. Franklin E. Murphy said it had been the custom in the matter of selecting delegates to the American Medical Association to select at the same time alternates.

Dr. McMester said that a resolution introduced by Dr. Lutz two years ago made that unnecessary, since that resolution was to the effect that anyone who did not expect to attend the meeting should refuse to accept the nomination.

Dr. Madry moved the appointment of a committee of three on necrology.

The motion was seconded and carried, and the Chair appointed Drs. Howard Hill, F. J. Lutz, and E. H. Miller.

On motion the House took up the consideration of the next place of meeting.

Dr. Woodson extended an invitation to meet in St. Joseph.

Dr. Clark, of Jefferson City, invited the Association to meet there.

An invitation was extended to meet in Excelsior Springs.

The result of the ballot was as follows:

Jefferson City, 39; St. Joseph, 22; Excelsior Springs, 8. Jefferson City was selected for the next place of meeting.

On motion adjourned till Thursday morning at 8:30.

THURSDAY MORNING, MAY 5, 1910.

The House was called to order at 8:35 by President Tinsley Brown.

The reading of the minutes was dispensed with.

The Nominating Committee reported the following nominations:

First vice-president, Dr. W. T. Lindley, Hamilton; second vice-president, Dr. George Homan, St. Louis; third vice-president, Dr. J. Y. Hume, Armstrong; fourth vice-president, Dr. W. A.

Camp, Springfield; fifth vice-president, Dr. John Ashley, Bloomfield.

Councilor second district, Dr. L. A. Todd, St. Joseph; third district, Dr. G. W. Whitely, Albany; fourth district, Dr. Samuel Sheldon, Trenton; fifth district, Dr. E. E. Parrish, Memphis; sixth district, Dr. James Hanks, Brashear; seventh district, Dr. J. D. Smith, Shelby; eleventh district, Dr. J. D. Brummall, Salisbury; twelfth district, Dr. C. M. McConkey, Lathrop; seventeenth district, Dr. S. G. Kelley, Sedalia; twenty-seventh district, no one nominated.

Committee on Public Policy and Legislation, Dr. Robert M. Funkhouser, Chairman; Drs. Jabez N. Jackson and A. R. McComas.

Dr. F. H. Fulton introduced the following resolution:

WHEREAS, The medical profession is being aroused to the fact that our public school system needs to be bettered physically; be it therefore

Resolved, That the Missouri State Medical Association, in session at Hannibal, take steps toward influencing our law-makers to enact a law to provide for a commission to inspect the pupils in our public schools as to their mental and physical status.

On motion the resolution was referred to the Committee on Public Policy and Legislation.

Dr. Fulton introduced the following resolution:

WHEREAS, Venereal disease has become so prevalent in the human family that daily the medical profession is called upon to witness the infection in innocent and unsuspecting women by marriage to men afflicted with some form of the disease; and

WHEREAS, The medical profession has become awake to the dreadful and appalling effect of the disease in innocent persons; therefore be it

Resolved, That the Clinton County Medical Society memorialize the Missouri State Medical Association at the next meeting at Hannibal, in May, 1910, to take such steps as may be necessary to influence our next General Assembly to enact such laws as will require every man before entering or seeking to enter marriage, to be examined by a designated physician, or commission of competent physicians, before license shall be granted him. Such examination to determine whether applicant has or has not venereal disease, or has been cured of disease a sufficient time to make it safe for him to enter matrimony.

On motion the resolution was referred to the Committee on Public Policy and Legislation.

Dr. W. S. Allee introduced the following resolution:

WHEREAS, The Forty-fifth General Assembly of the State of Missouri has submitted to the voters of this state for their adoption or rejection at the general election in November, 1910, a constitutional amendment which will be known on the ballot as Constitutional Amendment Number Five, the purpose of which is to provide for the erection and equipment of a new State Capitol; and

WHEREAS, The present capitol building of the State of Missouri is greatly inferior to the capitol buildings of surrounding states, and is wholly inadequate for the convenient transaction of public business, and unsafe for want of fire-proof construction; therefore be it

Resolved, By the Missouri State Medical Association, that we heartily endorse the action of the General Assembly of the State of Missouri in submitting to the people of Missouri the said Constitutional Amendment Number Five; and be it further

Resolved, That said Constitutional Amendment Number Five is a wise and necessary measure, and it is the sense of this Association that the amendment should be adopted at the polls at the general election in November, 1910.

On motion the resolution was adopted.

Dr. Allee asked for the report from the Judicial Council.

Dr. W. B. Dorsett read the report, as follows:

REPORT OF THE JUDICIAL COUNCIL.

The accounts of the treasurer as shown in the report referred to the Council, have been audited by the Council and found to be correct; the report is, therefore, approved.

The recommendations conveyed in the President's message are approved and their adoption recommended. The following resolution is offered for your adoption:

Resolved, That the Missouri State Medical Association endorse the proposed amendment to the constitution of the state to levy an assessment of 3 mills on each \$100 of taxable property to provide a fund for the maintenance of the Missouri State University.

For the ensuing year the Council has elected the following officers:

F. J. Lutz, Chairman of Council.

E. J. Goodwin, Secretary of the Council.

J. Franklin Welch, reelected Treasurer.

E. J. Goodwin, Secretary of the Association and Editor of THE JOURNAL.

The Council desires to express its appreciation of the services of the retiring Secretary, Dr. A. W. McAlester, Jr. Never has the work of this important office been conducted in such systematic, exact and expeditious manner as has been done under the direction of Dr. McAlester. He had the distinction of being recognized by the officers of the American Medical Association as the best state secretary of all the state associations, and his methods of tabulating and recording the membership have been recommended for adoption in all state associations. The Judicial Council feels that the House of Delegates should express its appreciation of his services by a vote of thanks.

Dr. W. S. Allee moved that the report of the Judicial council be received and adopted. Seconded and carried.

Dr. Allee moved that the House of Delegates extend a rising vote of thanks to Dr. McAlester for his efficient services. Seconded and carried.

The House called for a speech, but Dr. McAlester merely expressed his appreciation and said that he hoped at some future time to see the secretary of the State Board of Health and the secretary of the Association in one office.

Dr. Herman Pearce, Kansas City, called attention to the opportunity that now awaited the members for efficient work in the State legislature. The board of health now had the use of rooms in the Supreme Court building on the Capitol grounds. The chief statistician of the state was a member of the State Association and there was no reason why the hope of the secretary might not be fulfilled and the secretary of

the Association, the chief statistician and the Secretary of the State Board of Health be in a central office at Jefferson City. It would mean much for the betterment of physicians of the state if this could be brought to pass when the time was ripe.

Dr. McAlester then read the following amendment, which had its first reading in 1909:

To amend Chapter VIII, Section 3, of the By-Laws, by inserting after the word "secretary," in line two, the following: "The members of this committee shall serve for a period of three years each; except that upon the adoption of this amendment one member shall be elected to serve one year, one to serve two years and one to serve three years, and thereafter one member shall be elected each year."

Dr. Allee moved its adoption. Seconded and carried.

Dr. E. H. Miller introduced the following resolution:

WHEREAS, The phenomenal strides in scientific medical advancement have necessitated a much more thorough and extensive education for the practitioner of medicine of the future than has prevailed in the past; and

WHEREAS, The public demand for skilled physicians, the legal qualifications demanded by the state and the enormous services rendered gratuitously to the state and the public by the profession entail state obligation to the proper education of the practitioner of medicine; therefore be it

Resolved, That the medical profession of Missouri deplores the necessity which has led to the abandonment of advanced medical education by the Missouri State University, and hereby demands that the curators of the University exert every effort to correct this mistake at once and provide a medical department therefor equal to that of any western state and in keeping with the responsibilities of the fifth state of the Union; further, be it

Resolved, That the medical profession of the State of Missouri urges upon the legislature financial appropriation looking to the immediate accomplishment of these ends.

Dr. Allee moved its adoption. Seconded.

Moved by Dr. W. B. Dorsett that inasmuch as this body had a committee on Public Policy and Legislation, that the action of the Judicial Council on the matter of appropriation by the Legislature of sufficient funds to maintain a medical department of the State University commensurate with the standing of the fifth State in the Union, be referred to the Committee on Public Policy and Legislation, and that the committee be requested to act with the curators of the State University in all matters looking toward this end.

The motion was seconded and carried.

On motion the House adjourned *sine die*.

MINUTES OF THE JUDICIAL COUNCIL.

The Council was called to order at 11:45 a. m., the chairman, Dr. Lutz, presiding. On roll call the following councilors responded: W. T. Elam, Second District; E. E. Parrish, Fifth District; W. B. Dorsett, Eighth District; A. R. McComas, Ninth District; J. D. Brummall, Eleventh District; E. H. Miller, Twelfth District; F. E. Mur-

phy, Thirteenth District; Vincil O. Williams, representing J. R. Buchanan, Sixteenth District; W. J. Ferguson, representing R. D. Haire, Seventeenth District; Frank DeVilbiss, Eighteenth District; F. J. Lutz, Twentieth District; W. S. Hutton, Twenty-second District; C. R. Fleming, Twenty-fifth District; A. H. Madry, Twenty-eighth District.

The report of the treasurer was referred to an auditing committee composed of the following: Drs. DeVilbiss, Hutton and Madry.

Dr. Dorsett, chairman of the publication committee, stated that the contract for publishing *THE JOURNAL* expired with the June issue, and submitted new bids. He also stated that the Publication Committee had requested the General Secretary of the American Medical Association to consider the question of printing *THE JOURNAL* at the Chicago office, but owing to the coming session of the Association at St. Louis, it was decided to put the matter off until after the June meeting.

Dr. Brummall moved that the question of the publication of *THE JOURNAL* be referred to the Committee on Publication and the Executive Committee jointly, with full power to act. This was seconded and carried.

Dr. Madry moved that the secretaries of the county societies be instructed to send to *THE JOURNAL* all items in local newspapers in which the names of physicians are published in an objectionable manner, in connection with the treatment of their patients. Seconded and carried.

Dr. Elam moved that \$1,000 be set aside from the general fund and added to the defense fund, the amount in the latter remaining from last year to be retained in the defense fund. Seconded and carried.

The secretary read the resignation of Dr. Haire, counselor of the Seventeenth District. On motion Dr. Haire's resignation was accepted and the secretary instructed to inform the chairman of the Nominating Committee that a vacancy existed in the district. Seconded and carried.

The President's message was referred to a committee composed of Drs. E. H. Miller, W. T. Elam and Franklin E. Murphy.

The following reports were made of the conditions existing in the various counties in the districts represented by the councilors reporting:

Dr. W. T. Elam, councilor of the Second District, reported that on March 3, 1910, Andrew County had merged with the St. Joseph-Buchanan County Medical Society to form the St. Joseph-Buchanan-Andrew County Medical Society. The society has a membership of 113 and is in a flourishing condition. The average attendance at meetings is fifty, and weekly meetings are held. The post-graduate course is in operation and very profitable.

Dr. G. W. Whiteley, councilor of the Third District, said Gentry County Society was not doing good work; meetings were held quarterly, but the attendance averaged only six, and not more than three or four papers had been read. He hoped renewed interest would be created in this society for 1910. In Harrison

County the members are well organized and doing good work, although not holding meetings as frequently as they should do. He intended to have a public meeting at any early date, and as there are many good and wide-awake doctors in this county he believed they would begin to do better work soon. Worth County is in very bad shape; no meetings are held and the members have not shown any disposition to revive the work, although he had tried on many occasions to stir up their interest. In DeKalb County much the same conditions prevail as in Worth, although Dr. Evans, President of DeKalb County Society, has succeeded in keeping up the interest of some of the members, but he has moved to another town and since then it has been difficult to get the members together; this is not very surprising, however, because it is necessary for some members to travel a distance of 75 miles to attend meetings at Maysville.

Dr. E. E. Parrish, Councilor of the Fifth District, reported that Scotland County Society had been in a bad way for a year or more, but he believed they were now on the road to doing effective work and the members are looking forward to the best year in their history. Clark County holds meetings occasionally, but the attendance is very light, only about five members being present, and but one paper was read during the year. Schuyler County had a very good year, meetings being held quarterly with an average attendance of nine members; seven papers were read and several patients presented for examination; the society is more progressive than it has ever been and the outlook for this year is very promising.

Dr. W. B. Dorsett, councilor of the Eighth District, reported that St. Louis County Society is doing good work, and the members, while not as active as might be desired, nevertheless are interested and hold meetings regularly. The average attendance has been twelve; seven papers were read and at two meetings a number of patients were presented. St. Charles County has held only two meetings during the year. The society has eighteen members, several of whom reside in Warren County. The society is capable of doing much better work than it has accomplished in the past. Pike County has had an average attendance of ten members and thirty papers were read; six patients were shown at the meetings. Lincoln County has done nothing during the year and is practically dead. He had tried by every means to stir up interest among the members, but without success. He believed it would facilitate the work if this society were hyphenated with Pike County, and recommended that such action be endorsed by the Council.

Dr. A. R. McComas, councilor of the Ninth District, reported that Callaway County was doing very indifferent work in society matters; at times they failed to have meetings, owing to the lack of attendance; at such meetings that have been held there was an average attendance of eight members and five papers had been read, while one meeting was of a clinical nature. The society had a membership of twenty-five, with a number of these delinquent in their dues. Montgomery County holds meetings quarterly, but it has happened too frequently that members do not attend when they are on the program to read papers; the average attendance has been eight, and two or three papers have been read. He believed, however, that this society would do much better work in the future, and would devote his efforts to stimulate greater interest among the members. Audrain County has had one of the best years in its history; some of the papers read have been very excellent and the interest among the members is satisfactory and growing. The report from Boone County does not show an encouraging state of affairs, although a number of meetings have been held and several papers read. Howard County holds meetings regularly, although they are not as well attended as they should be. All

members have paid their dues. The society holds meetings monthly, with an average attendance of ten; only two papers were read, while six patients have been shown and examined.

Dr. J. D. Brummall, councilor of the Eleventh District, reported that Carroll County had an average attendance at its monthly meetings of six members; two papers had been read and three patients presented. The interest in society work had lagged considerably. In Chariton County the average attendance was seven; four papers had been read and six patients presented. One public meeting was held, at which the President, Dr. Brown, and the Chairman of the Judicial Council, Dr. Lutz, were present and addressed the meeting. The people were well pleased with the work of the society and the open session had done much toward instructing the laity in public health and sanitary matters. In Linn County the average attendance is ten and twelve papers had been read at the meetings; the members hold together well and pay their dues, but the report of the secretary did not give details of the year's work. Livingston County holds monthly meetings, at which six papers had been read and two patients presented. The membership is twenty, with six delinquents or removed.

Dr. E. H. Miller, councilor of the Twelfth District, reported that Clay County had shown a very decided increase in membership and interest in society work due to the effective efforts of the county secretary. The society now has thirty-four members all paid up, and is in splendid condition; at its meetings in Liberty the members join with the Liberty Post-Graduate Society for study in that course and at several consecutive meetings every physician in Liberty has been present. The average attendance is 10; twelve papers have been read and five patients presented for examination. Clinton County Society is progressing well, owing to the untiring efforts of the county secretary, Dr. McConkey; meetings are held quarterly with an average attendance of eight; six papers have been read. Caldwell County is also doing splendid work, holding quarterly meetings with an average attendance of ten members; there are twenty-five members on the roster, all paid up. Daviess County is likewise doing good work; its quarterly meetings are well attended, the average number being eight; eight papers were read; of the fourteen members, only three are delinquent. Ray County continues to do good work, and has a very energetic secretary to keep the members from losing interest; the report from the secretary, however, did not give details of the work done during the year. Platte County Society has made rapid progress in the right direction and manifests splendid interest in all medical organization matters; the papers read at the meetings are of a practical character and always interesting; two open meetings are held each year, and the public has shown its appreciation of the instructive nature of these meetings.

Dr. J. Robert Buchanan, councilor of the Sixteenth District, was unable to be present, but sent his report by Dr. V. O. Williams, who represented the councilor at the meeting. The report showed that in Bates County only three doctors in active practice were not members of the society, the total number of members being thirty-seven; nine meetings had been held during the year and fourteen papers read. Vernon County has thirty paid-up members, four new members having been added during the year, while three had moved away; there are five doctors in the county who are eligible to join the society and five others not eligible. For Jasper County no report had been furnished for presentation to the Council.

Dr. R. D. Haire, councilor of the Seventeenth District, sent his report by Dr. W. J. Ferguson of Sedalia, the councilor being unable to attend. The report for Benton County showed that only two meetings had been held by that society; both were well attended and of a very interesting character; three papers were

read and the attendance was twelve at each meeting; several patients were shown. Henry County has had a very successful year, the average attendance at the meetings being ten, and twenty-four papers read; seven patients were presented for examination. The post-graduate course of study has proved to be a drawing feature and the members have taken a great interest in this phase of the work. The society meets once a month and has thirty-three members.

Dr. E. F. DeVilbiss, councilor of the Eighteenth District, reported that Miller County was holding regular meetings quarterly, with an average attendance of eight members; four papers had been read, and at one meeting several patients had been presented. In Moniteau County conditions are very satisfactory; the members maintain a very active interest in the work of the organization and excellent papers have been read at all the meetings. The average attendance has been ten, the number of clinical cases presented six. All eligible physicians in active practice in the county are members of the society. Camden County holds meetings quarterly and twelve papers were read; at two of the meetings several patients were presented.

Dr. G. Ettmuller, councilor of the Nineteenth District, reported that Cole County had held only three meetings, with an attendance of ten members at each of the meetings; six papers had been read; the society should hold meetings monthly, but the interest in the work is not as great as it should be. No report had been received from Gasconade-Maries-Osage County.

Dr. F. J. Lutz, councilor of the Twentieth District, reported St. Louis Medical Society in excellent condition, with over 700 members, and interest in the meetings well sustained; the average attendance has been eighty members and forty-nine papers were read. The report from Franklin County did not show details of the work, but they have twenty-five members and will do good work.

Dr. W. S. Hutton, councilor of the Twenty-second District, stated that Scott County was doing good work, holding meetings quarterly, with an average attendance of eight; two papers had been read, and the discussions on these very practical and interesting. Mississippi County holds meetings monthly and is doing good work; all the reports of the meetings are published in *THE JOURNAL*; the average attendance has been seven; the number of papers read ten, and six patients were presented. Madison County holds meetings twice a month, the average attendance being seven; number of papers read eleven, while a large number of clinical cases were presented for examination and discussion. The society is active in legislative matters and maintains a lively interest in all such affairs. Cape Girardeau County is doing fairly good work; meetings are held monthly, with an average attendance of seven, and sixteen papers have been read.

Dr. T. C. Allen, councilor of the Twenty-third District, reported that every county in his district was organized and doing creditable work; he believed the present interest will continue. Fifty per cent. of the eligible physicians in the district are members of the organization, and the attendance at society meetings is about 60 per cent. of the membership. He expected during the year to show an improvement over this report.

Dr. T. W. Cotton, councilor of the Twenty-fourth District, was unable to make a detailed report of the work in his district because secretaries of the county societies had not furnished him with the information. In Carter-Shannon County a public meeting had been held last week which was attended by about 2,000 people and was the best and most enthusiastic meeting in the history of the society. Butler County is doing good work, but Ripley County in which there are comparatively few members, is quite inactive. He recommended that Ripley County be hyphenated with an adjoining county. Wayne County was reorganized

on February 9 and another meeting was held in March. Conditions in his district are far from satisfactory, but he had hopes of being able to improve the status of the organization during the coming year.

Dr. C. R. Fleming, councilor of the Twenty-fifth District, reported for two societies only—Iron and St. Francois. In both counties little work had been done, although the members keep up the payment of their dues. He hoped to show a better condition of affairs at the next meeting.

Dr. Madry, councilor of the Twenty-eighth District, reported that Greene County, the largest society in his district, is doing work of a very high order. The program committee of this society plans the work for an entire year at the beginning of the year, and so arranges the subjects that they shall cover a very wide scope. This society is constantly watching the enforcements of the medical laws, and have prosecuted several practitioners for writing illegal whisky prescriptions, none of whom, however, was a member of the society. Accusations against members of the society for writing whisky prescriptions illegally had been made, but a searching investigation demonstrated that these were entirely false, and in several cases, unquestionably malicious. Through the good work of the society, the water supply of Springfield had been examined and found to be contaminated. Upon recommendation of the committee of the society that the water supply be filtered, the water company had promised the City of Springfield to erect filtering plants for the purification of the water supply. Public meetings had been held which were of great interest to the people, and much benefit in instructing the laity in matters of public health and sanitation. In Polk County only two meetings had been held in 1910 and one in 1909. These meetings had an average attendance of seven members. A number of patients had been examined and four papers read. The secretary of this society, Dr. J. F. Roberts, has worked very hard to keep up the interest of the members, but they do not respond to his pleadings with an encouraging degree of interest. The society numbers among its members many men who should take a very active interest in society matters, and during the coming year the councilor will make special efforts to build up this society to its full strength. From Christian County no report had been received for 1909. During 1910 only one meeting had been held, and several very interesting papers read and discussed. The secretary reports this meeting a very enthusiastic one, and believes that in the future the members will take a deeper interest with society work. Lawrence-Stone County is very active, live and enthusiastic. During the year eighteen papers have been read at the four meetings which were held, and the average attendance had been fourteen. Patients have been presented at three of the meetings, and the discussions of the conditions found were of great value and interest to the members. The papers have been excellent and the subjects instructive. It is the pride of this society that it has never had a dull meeting. Open meetings have been held, and the public instructed in matters of public health and sanitation. Webster County has been doing good work. Has held one public meeting, and had an average of seven members at the regular meetings. Every eligible physician of the county is a member of the society, and the members are working together for the improvement of public health and sanitary conditions. The councilor has visited the society and encouraged the members in their good work. Taney County does not respond to inquiries concerning the conditions in that society. It is one of the smallest organized counties in the state and very sparsely settled. The secretary, Dr. Elizabeth McIntyre, has kept up the interest of the members; the roughness of the country and the long distance members must travel in order to attend

meetings naturally prevents frequent meetings. Barry County has twenty members and has been doing good work. No detailed report had been received in time to present to the Council.

On motion the Council adjourned to 3 p. m.

3 P. M.

The Council convened at 3 p. m., the chairman, Dr. Lutz, presiding.

The auditing committee reported as follows:

We, your auditing committee, have audited the bills, books, certificates and bank books of the Treasurer and find them correct as per the Treasurer's report.

FRANK DEVILBISS,

A. H. MADRY,

W. S. HUTTON,

The Committee.

On motion the report was adopted.

Dr. Elam moved that the Treasurer furnish a bond in the sum of \$4,000, the bond to be placed in the custody of the Chairman of the Council and a warrant drawn for the amount of the premium. Seconded and carried.

The committee, to whom was referred the President's message, reported favorably upon the recommendations contained in the message and recommended their adoption. On motion the report was adopted.

Dr. Madry introduced the following resolution:

Resolved, That the Judicial Council respectfully recommends that the House of Delegates endorse the constitutional amendment for the levy of three cents on the hundred dollars for the maintenance of the State University.

On motion the resolution was adopted.

On motion adjourned to 9 a. m. Wednesday.

WEDNESDAY, MAY 4.

The Council was called to order at 9 a. m. The chairman being absent, Dr. Dorsett was elected to preside.

The report of the Committee on Tuberculosis was referred back to the House of Delegates with the recommendation that the request for funds to carry on the work of this committee be not granted on account of the small balance that would be left in the treasury after all expenses for the year had been paid.

Officers for the ensuing year were elected as follows: Chairman of the Council, Dr. F. J. Lutz; Secretary of the Council, Dr. E. J. Goodwin; Secretary of the Association and Editor of THE JOURNAL, Dr. E. J. Goodwin; Treasurer, Dr. J. Franklin Welch.

On motion adjourned *sine die*.

MINUTES OF THE GENERAL SESSION.

THURSDAY, MAY 5, 1910.

The General Session was called to order at 9:10 a. m. by the President, Dr. Tinsley Brown.

Dr. C. Lester Hall moved that the house proceed with the nominations for President. Seconded and carried.

The President appointed tellers: Drs. Conover Ferguson, Devilbiss and Brummall.

While the tellers were collecting the informal ballot, Dr. W. S. Allee introduced the following resolution:

WHEREAS, The physicians, the Commercial Club and the citizens of Hannibal have provided rooms and halls for the meeting of the Association and for the general and section meetings, and have royally entertained the members of the Association by receptions and courtesies extended on every hand; therefore be it

Resolved, That the sincere thanks of the Missouri State Medical Association be extended to all who have contributed to our comfort and pleasure; and especially do we wish to thank Mr. Sidney J. Roy, of the Commercial Club, for his untiring efforts to secure our accommodation and comfort.

On motion the resolution was adopted unanimously.

The informal ballot having been completed, the tellers announced the vote: Dr. Herman E. Pearse, of Kansas City, 48 votes; Dr. Robert H. Goodier, of Hannibal, 48 votes; Dr. W. W. Graves, St. Louis, 1 vote; Dr. C. W. Fassett, St. Joseph, 1 vote.

Dr. Goodier thanked the members for the testimonial of their confidence and trust in voting for him for President, but withdrew in favor of Dr. Pearse.

On motion the rules were suspended and Dr. Pearse was unanimously elected President.

The election of the Orator on Medicine being the next order of business, Dr. C. H. Suddarth nominated Dr. E. H. Miller, of Liberty. Dr. Jabez N. Jackson moved the suspension of the rules and the unanimous election of Dr. Miller. Seconded and carried.

For Orator on Surgery, Dr. W. B. Dorsett nominated Dr. Robert M. Funkhouser, of St. Louis. On motion the rules were suspended and Funkhouser was declared unanimously elected.

The report of the Committee on Tuberculosis was read by Dr. George Homan, of St. Louis. (See page 34).

Dr. C. M. McConkey said it gave one a sense of regret to see how few steps had been taken toward the prevention of this terrible disease. The committee had gone to much trouble to find out what had been done and found that a great deal had been done in St. Louis, but this work should be extended into every community in the State. The report was not as complete as they hoped it would be in years to come for they lacked money to go into it as fully as it was desired they should do. In order to do the work in a manner to gain the best results it would be necessary to have the assistance of the county health officers. Since the report carried a recommendation for the appropriation of funds for the use of the committee, he moved the adoption of the report and that the recommendations be made a part. Seconded.

Dr. McAlester informed the meeting that the condition of the finances of the Association would

not permit the appropriation of funds for the use of this committee.

The motion to adopt the report and the recommendations was then amended to adopt without the appropriation of funds. Seconded and carried.

The report of the Committee on Ophthalmia Neonatorum was read. (See page 31).

Dr. Allee said every member had received a copy of the report and was doubtless familiar with its contents and, therefore, he moved its adoption. Seconded and carried.

The report of the Committee on Cancer was read by Dr. Goodwin, in the absence of the Chairman of the committee.

On motion the report was received.

Dr. Brown thanked the members for their assistance and courtesy during the past year and throughout the session, and then appointed Drs. E. H. Miller and W. S. Allee to escort the President-elect, Dr. Pearse, to the Chair.

Dr. Pearse thanked the members for the honor conferred upon him and in a few appropriate remarks assured them of his sympathy with the aims and objects of the Association and his desire and intention to bend every effort toward the accomplishment of these objects, and he felt sure that he would have the hearty and sympathetic assistance of all the members.

There being no further business before the Assembly, the session adjourned *sine die*.

MEDICAL SECTION.

TUESDAY AFTERNOON, May 3, 1910.

The meeting was called to order at 2:20 p. m., Dr. Franklin E. Murphy in the chair.

The following papers were read:

"Malaria in Infancy and Childhood," by Dr. J. H. Timberman, Marston. Discussion by Dr. W. L. Birney, Oakwood.

"Recognition of Lung Tuberculosis," by Dr. O. H. Brown, St. Louis.

On motion the discussion was postponed until after the reading of the next paper.

"Clinical Deductions in the Study of Tuberculosis," by Dr. William Porter, St. Louis.

Discussion of both papers by Drs. C. C. Conover, Kansas City; W. W. Graves, St. Louis; L. H. Hempelmann, St. Louis; W. L. Birney, Oakwood; J. M. Bell, St. Joseph; Wm. Frick, Kansas City; L. A. Bazan, Clark; Dr. Brown and Dr. Porter closing.

"Conservation by the X-Ray," by Dr. W. L. Brosius, Gallatin.

Discussion by Drs. Joseph Grondon, St. Louis; Wm. Frick, Kansas City; Geo. W. Goins, Breckenridge; Birney, Oakwood; C. H. Suddarth, Smithville; Dr. Brosius, closing.

"Life Insurance Examinations," by Dr. Geo. W. Goins, Breckenridge.

The meeting adjourned at 4:45 p. m. to meet Wednesday at 2 p. m.

WEDNESDAY, May 4th.

The meeting was called to order at 2:30 p. m., Dr. Murphy in the chair.

The following papers were read:

"Visceral Syphilis," by Dr. Wm. Engelbach, St. Louis.

Discussion by Drs. Joseph Grindon, St. Louis; C. R. Woodson, St. Joseph; G. C. Crandall, St. Louis; W. W. Graves, St. Louis; Jesse S. Myer, St. Louis; O. H. Brown, St. Louis; Geo. W. Goins, Breckenridge; Dr. Engelbach, closing.

"Some Problems Presented by Dermatoses Co-existing with Syphilis." by Dr. Joseph Grindon, St. Louis.

Discussion by Dr. William Friek, Kansas City.

"The Practical Importance of the Wassermann Reaction," by Dr. John W. Marchildon, St. Louis.

Discussion by Drs. Frank R. Fry, St. Louis; W. W. Graves, St. Louis; J. M. Bradley, St. Louis; Dr. Marchildon, closing.

"Tuberculin Therapy," by Dr. Geo. C. Crandall, St. Louis.

Discussion by Drs. W. H. Luedde, St. Louis; O. H. Brown, St. Louis; J. W. Marchildon, St. Louis; J. M. Bradley, St. Louis; Geo. W. Goins, Breckenridge; Dr. Crandall, closing.

"Psychotherapy vs. Eddyism," by Dr. R. Willman, St. Joseph.

Moved, seconded and carried that Dr. Miller's paper be read after the conclusion of the evening program.

The Section here proceeded to elect officers and the following were nominated:

Dr. O. H. Brown nominated Dr. Joseph Grindon, St. Louis, for chairman of the Section, and the nomination was seconded.

Dr. C. H. Suddarth nominated Dr. Brosius, of Galatin.

Dr. Brosius declined the nomination and moved that the secretary cast the ballot of the Section for Dr. Grindon for chairman. The motion was seconded and carried.

Dr. W. H. Luedde nominated Dr. W. L. Brosius, Galatin, for vice-chairman.

Dr. O. H. Brown seconded the nomination, and moved that the secretary cast the ballot for Dr. Brosius for vice-chairman. The motion was seconded and carried.

Dr. Brumall nominated Dr. J. H. Dixon, Holliday, for secretary. On motion the secretary cast the ballot for Dr. Dixon for secretary.

At 5:30 p. m. the meeting adjourned *sine die*.

SURGICAL SECTION.

TUESDAY, MAY 3, 1910.

The Surgical Section was called to order by the chairman at 1:30 p. m.

Dr. C. M. Nicholson, St. Louis, read a paper on "Resection of the Large Intestine for Malignant Disease."

This was discussed by Drs. C. Lester Hall, Kansas City, F. G. Nifong, Columbia, and C. M. Nicholson in closing.

Dr. H. S. Crossen, St. Louis, read a paper on "What Is the Best Treatment for Acute Spreading Peritonitis?"

The paper was discussed by Drs. W. C. G. Kirehner, St. Louis; F. G. Nifong, Columbia; E. F. Robinson, Kansas City; H. C. Dalton, St. Louis; C. Lester Hall, Kansas City; Francis Reder, St. Louis, and Dr. Crossen in closing.

Dr. Howard Hill, Kansas City, read a paper on "Operations for the Cure of the More Severe Types of Uncomplicated Lacerations of the Pelvic Floor."

Discussion was participated in by Drs. Geo. Gellhorn, St. Louis; H. S. Crossen, St. Louis; Francis Reder, St. Louis, and Walter B. Dorsett, St. Louis.

Dr. W. J. Friek, St. Louis, read a paper on "Myomectomy for Uterine Fibroids."

Dr. J. F. Binnie, Kansas City, read a paper on "Bursitis."

The following papers were read in a symposium:

"Cases Illustrating Some Points in the Surgery of the Large Bowel." Dr. John Young Brown, St. Louis.

"Membranous Pericolitis." Dr. Jabez N. Jackson, Kansas City.

"The Appendix Stump." Dr. M. G. Seelig, St. Louis.

"Intestinal Obstruction from Appendiceal Adhesions." Dr. C. R. Dudley, St. Louis.

"Rupture of the Intestine from Abdominal Traumatism." Dr. H. P. Kuhn, Kansas City.

The discussion of these papers was participated in by Drs. H. C. Crowell, Kansas City; Max W. Myer, St. Louis; H. C. Dalton, St. Louis; C. H. Wallace, St. Joseph; J. F. Binnie, Kansas City; H. E. Pearse, Kansas City; W. C. G. Kirehner, St. Louis; Howard Hill, Kansas City; Francis Reder, St. Louis, and C. Lester Hall, Kansas City.

This closed the proceedings for the first day's session and the Section adjourned to Wednesday afternoon, 2 o'clock.

WEDNESDAY, MAY 4, 1910.

The Section was called to order by the Chairman, and the following papers read:

"Anomalies of the Inguinal Canal." Dr. Wm. A. McCandless, St. Louis.

Discussion by Drs. Ernst Jonas, St. Louis; Howard Hill, Kansas City, and Dr. McCandless in closing.

"Paget's Disease of the Nipple, with Report of an Interesting Case." Dr. Ernst Jonas, St. Louis.

Discussion by Drs. A. E. Hertzler and Ernest Jonas in closing.

The Bladder Symposium:

"Bladder Stone." Dr. Ernest G. Mark, Kansas City.

"The Technic of Immediate Closure of the Bladder, Following Suprapubic Cystotomy." Dr. C. E. Burford, St. Louis.

"Prostatectomy Without Opening the Bladder, by the Perineal Route, with Immediate Suture." Dr. Arthur E. Hertzler, Kansas City.

"The Bladder in Inguinal and Femoral Hernia." Dr. W. T. Coughlin, St. Louis.

Discussion by Dr. W. T. Elam, St. Joseph; Dr. E. G. Mark, Kansas City; Dr. Ernst Jonas, St. Louis; Dr. W. T. Coughlin, St. Louis; Dr. H. P. Kuhn, Kansas City; Dr. Francis Reder, St. Louis; Dr. Herman E. Pearse, Kansas City; Dr. C. E. Burford, St. Louis.

"Carcinoma of the Penis." Dr. W. E. Leighton, St. Louis.

"Estheomine: Report of a Case, with Exhibition of Photographs." Dr. C. L. Castle, Kansas City.

Discussion by Dr. A. E. Hertzler, Kansas City.

"The Surgical Treatment of Bone Tuberculosis in the Adult." Dr. Alexander E. Horwitz, St. Louis.

Discussion by Dr. Francis Reder, St. Louis, and Ernest Jonas, St. Louis.

"Further Experiences with the Internal Splint in the Treatment of Fractures." Dr. Herman E. Pearse, Kansas City.

Discussion by Dr. Jabez N. Jackson, Kansas City; R. M. Funkhouser, St. Louis; Francis Reder, St. Louis, and Dr. Pearse in closing.

The election of officers resulted in the election of Dr. A. E. Hertzler, Kansas City, for Chairman, and Dr. E. G. Mark, Kansas City, for Secretary.

Upon motion, adjourned *sine die*.

MINUTES OF THE EYE, EAR, NOSE AND THROAT SECTION.

TUESDAY, MAY 3, 1910.

The meeting was called to order at 2:15 p. m. by the chairman, Dr. John Green, Jr.

There being no minutes of the last session, the meeting proceeded to the reading of the scientific papers.

Dr. Hornback read a paper entitled "A Suggestion in the Treatment of Trachoma." Discussed by Drs. Loeb and Lichtenberg; Dr. Hornback closing.

Dr. Green called Dr. Lichtenberg to the chair while he assisted Dr. Guggenheim in a lantern demonstration.

Dr. Guggenheim gave a lantern demonstration of pathologic preparations of the middle ear. Discussed by Drs. Scholz, Lichtenberg and Hornback.

Dr. Green resumed the chair.

A motion was made by Dr. Hornback, and seconded, that the Section extend a vote of thanks to Dr. Guggenheim for his excellent demonstration of the specimens. The motion was carried unanimously.

The Secretary read the report of the Committee on Ophthalmia Neonatorum. Discussed by Drs. John Green, Jr., Lichtenberg, J. C. Shelton, Clarence Loeb, Guy Titsworth, L. K. Guggenheim and Hornback.

Dr. Shelton moved that the Section endorse the report of the committee and request that the said committee be continued in force. Seconded and carried.

Dr. Loeb moved that the Chairman of the Section be instructed to notify the House of Delegates of the Section's action. The motion was seconded and carried.

Election of officers was ordered at this juncture and the following officers elected for the ensuing year: Chairman, J. C. Shelton, Chillicothe; Secretary, Robert Haley, Brookfield.

The chair stated that the meeting would adjourn until 7:30 p. m., when an informal meeting would be held in Dr. Hornback's office.

On motion, adjourned at 4:40 p. m.

EVENING SESSION

The Section was called to order by the chairman at 7:30 p. m., in the office of Dr. Hornback.

Dr. W. D. Black read a paper on "The Surgery of the Nasal Septum." Discussed by Dr. L. H. Guggenheim.

Drs. Hornback and Howell presented several patients for examination.

On motion, adjourned *sine die*.

MISSOURI SOCIETY OF COUNTY SECRETARIES.

The Society of County Secretaries held its second annual session at Hannibal on May 3, with Vice-President Dr. Vineil O. Williams in the chair. About forty members were present, and in addition to these the society entertained as its guest Dr. Frederick R. Green, Assistant to the General Secretary of the American Medical Association.

Dr. Bert B. Parrish, Secretary of Adair County Medical Society, read an excellent paper on the subject of "What the County Society Should Do with the Advertising Doctor." Dr. J. L. Burke, Secretary of Linn County Medical Society, read a paper of much interest and great practical value entitled "The Young Men in the Society and How to Interest Them."

A general discussion of these topics was indulged in by the members and interesting and valuable points

brought out, after which the society adjourned to the dining-room, where a splendid dinner had been arranged by the ladies of the Episcopal Church. Following the dinner the members were addressed by the guest of the evening, Dr. Green, who talked on the subject of "Medical Organization—Past and Present." Dr. Green's remarks were listened to with great attention, for he enlightened the members on many points of interest to the practicing physician, and especially the county secretary.

The officers elected for 1910 are: President, Dr. George W. Goins, Breckenridge; first vice-president, Dr. Bert B. Parrish, Kirksville; second vice-president, Dr. V. O. Williams, Nevada; secretary-treasurer, Dr. C. W. Fassett, St. Joseph.

REPORT OF THE SECRETARY.

Gentlemen: I have the honor to submit the following brief report for the fiscal year of 1909 and part of this year:

Membership.—The membership on Jan. 1, 1910, was 2,714. For this year 2,470 have paid their state dues. New members coming in during the last quarter of 1909 have been credited for 1910. There will be but slight future increase in our membership outside of the large cities. Several counties now have every eligible physician a member. There are not over four hundred eligible physicians non-members outside of our cities. There have been added to the roster about 170 new members. Two have been suspended. The increase in our membership at our last meeting entitled us to five delegates in the House of Delegates of the American Medical Association. Our membership must stay at this number if we are to maintain the advantage thus gained. So this year you will have three delegates to choose to serve two years. These men must have been members of the state association and of the American Medical Association for the past two years.

New Madrid County, with twelve members, has been organized by Dr. T. C. Allen of Bernie, Councilor for the District. Wayne County, with eight members, has been reorganized by Dr. E. W. Cotton of Van Buren, Councilor for the District. Dallas County, with six members, was organized, but on account of the secretary-elect being a sectarian and holding himself out as such, the secretary refused to enroll the organization until the matter was adjusted by the Councilor.

Andrew County was hyphenated with the St. Joseph-Buchanan County Medical Society March 3, 1910.

Lincoln County has been inactive for the past year.

Somewhere between thirty and forty of our members have removed from the state; I cannot give the exact number.

Following is a list of our members who have died since our last meeting: Drs. R. C. Carter, Higginsville; J. J. Norwine, Poplar Bluff; M. B. Collins, Glasgow; W. F. Mitchell, Lancaster; Henry Thornton, Maplewood; Justin Steer, St. Louis; Hugo A. Auler, St. Louis; Benno Brihaeh, St. Louis; Andrew Harscher, St. Louis; Julius B. Huber, St. Louis; Michael P. Reynolds, St. Louis; Joseph Spiegelhalter, St. Louis; Willis P. King, Kansas City; J. L. Thorpe, Jefferson City; D. W. Coon, Trenton; G. T. Twyman, Independence; J. L. Harrington, Kansas City; J. E. Tefft, Springfield; John H. Britts, Clinton; Jnnius Tompkins, Canton; S. H. Griffin, Humansville; Welton O'Bannon, New Madrid; T. J. Norris, Macon.

An official badge has been adopted. These are for sale to members for one dollar each. Simple ribbons have been provided for the meeting, at a saving of

some forty dollars, in lieu of the celluloid badges heretofore provided.

On account of a number of objections to the large amount of time consumed by the House of Delegates an industrious effort was made to get our committee reports in print and distributed to the delegates, but with only partial success. However it has been arranged for the reports of a scientific nature, if the House sees fit, to be referred to a general session where all can take part in the discussion. The objections so often raised to strictly section work led the secretary to suggest to the program committee that we in a measure return to the general session. The program committee have arranged an excellent program and I hope the House of Delegates will approve of a continuance of the present arrangement. General supervision of the form and printing has been looked after by Dr. Goodwin. He, by sending out at an early date the May issue of THE JOURNAL containing the program, saved about one hundred dollars.

The county secretaries hold their third annual meeting this afternoon. Dr. Frederick R. Green, Assistant Secretary of the American Medical Association, is to deliver an address.

Dr. Warren, of the United States Public Health and Marine Hospital Service, has been invited to address the General Session this evening.

Delegates to the United States Pharmacopoeial Convention were appointed by Dr. Brown. They are: Dr. R. T. Sloan, Dr. O. A. Wall and Dr. Jacob Block.

The House should again consider the suggestion presented last year, which was laid over for future consideration, of the change in the date of our meeting to the fall.

A. W. McALESTER, JR., Secretary.

REPORT OF COMMITTEE ON SCIENTIFIC WORK.

The Committee on Scientific Work respectfully reports that the effort has been made not only to prepare a creditable program but to provide also the time for its proper consideration. Effort has been made to secure contributions from all parts of the state, urging those members not living in the cities to write very often as the Society wishes to hear from them. To this end letters have been sent to every county inviting contributions.

The attention of the members is particularly called to one feature of the program, the arrangement for general sessions. In the program for the two periods of general sessions those papers of common interest to the internist and surgeon have been incorporated. The members of the Society are asked to give especial attention to this feature that they may pass judgment upon the value of the plan.

As our organization becomes better and more compact, we look for better coöperation between the Committee on Scientific Work and the county secretaries. This coöperation will not only tend to strengthen the scientific program but facilitate greatly the work of the committee.

This committee has found, as have the committees of other years, that men will write in promptly for places on the program although they have no intention of appearing at the meeting. This proves very annoying to the committee. The committee feels that it would be well to establish a system of rotation that the same men do not appear on the program year after year. Not that these men do not contribute papers of value, for as a rule they do; but we should strive to get out all that is best in the Society.

Two meetings of the committee have been held in St. Louis and the committee and the Society are in-

debted to the St. Louis members of the Committee on Scientific Work for the active and painstaking manner in which they have performed their duties.

The program was printed in the May issue of the JOURNAL and this was to be regarded as the general notification. Five hundred copies of the program were printed for distribution at this meeting. By this plan the expense for programs has this year been reduced about one-half.

The committee acknowledges its obligations to Dr. Goodwin, our Editor, for advice and many courtesies shown, and to Dr. McAlester, our Secretary, for aid rendered.

Respectfully submitted,

WILLARD BARTLETT, St. Louis.
JOHN GREEN, JR., St. Louis.
W. R. PATTERSON, Tipton.
LOUIS RASSIEUR, St. Louis.
CLARENCE LOEB, St. Louis.
FRANKLIN E. MURPHY, Kansas City.
Chairman.

REPORT OF PUBLICATION COMMITTEE.

Your Publication Committee has scrutinized all advertising matter that has appeared in the JOURNAL, and endeavored to have the statements made by the manufacturers regarding the medicinal action of preparations advertised by them, presented in reasonable and dignified language. All advertisements of proprietary remedies have carried with them the formula showing the composition of the preparations.

The eleven issues of the Journal, from July, 1909, to May, 1910, inclusive, contain 758 pages of reading matter, an average of 69 pages to the issue. This is made up of the following: 80 Original Articles; 53 Editorials; 96 Reports of County Society Meetings; The Roster Membership; Reviews of Books Received; List of Officers of the Association, and County Societies; Miscellaneous Items, such as,—items from different societies, and changes of addresses of the members, etc.

During the past twelve months the Publication Committee has endeavored to make the JOURNAL a medium of broader information for the members, especially upon certain phases of our professional life, hoping thereby, to put a stop to undignified practices on the part of some members, particularly, in relation to the appearance of the names of doctors in the public prints in connection with the treatment of patients under their care. We have, therefore, published certain items of this character from newspapers in different parts of the State, but have not printed the names of the physicians.

We are glad to report that the practice has been discontinued, in some parts of the State, by the members whose names previously had been frequently mentioned in this manner. Your committee believes that it would be advisable, hereafter, to publish in our JOURNAL the names of those physicians who permit the publication of articles of this character.

The cost of publishing the JOURNAL from July, 1909, to May, 1910, inclusive, was as follows:

July, 1909, \$252.63; August, 1909, \$110.25; September, 1909, \$138.50; October, 1909, \$137.10; November, 1909, \$122.65; December, 1909, \$136.30; January, 1910, \$177.37; February, 1910, \$134.95; March, 1910, \$174.83; April, 1910, \$171.40; May, 1910, \$125.75; total, \$1,675.73; average cost per month, \$161.43.

Respectfully submitted,

WALTER B. DORSETT, Chairman
M. B. CLOPTON,
M. C. SHELTON,

The Committee.

TREASURER'S ACCOUNT, 1909-1910.

RECEIPTS.

1909.			
May 15	By cash on hand....	\$7,217.94	
1910.			
March 28	By sale of buttons....	24.00	
April 4	By subscription to JOURNAL	6.50	
25	By interest on daily balance Salisbury Savings Bank.....	123.72	
30	By dues from county societies	5,120.40	\$12,492.56

DISBURSEMENTS.

April 30	To counselor's expenses	\$ 214.72	
	To committee expenses	110.72	
	To buttons	48.00	
	To printing, stationery and postage....	232.28	
	To supplies for secretary's office	15.50	
	To program	117.11	
	To stenographers at annual meeting ...	159.51	
	To bond for treasurer	20.00	
	To defense fund.....	1,000.00	
	To printing JOURNAL	1,796.36	
	To salaries	1,850.00	
		\$5,564.20	
	To balance on hand..	6,928.36	\$12,592.56

DEFENSE FUND—RECEIPTS.

1909.			
May 28	By transfer from general fund	\$1,000.00	
April 26	By interest on daily balance	26.40	\$1,026.40

DISBURSEMENTS.

1910.			
April 12	To Roseco Conkling, attorney	\$ 100.00	
	To balance on hand.	926.40	\$1,026.40

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

The committee begs to make the following report: As this has been an off year—the legislature not in session—there has been no state legislation. The chairman of the committee attended the Conference on Medical Education and Medical Legislation, held in Chicago, February 28 to March 2, the first meeting when the two bodies met together, since it was entirely unnecessary to have two bodies with same members doing the same work.

The conference of the Council on Medical Education and the Committee on Medical Legislation of the American Medical Association was well attended and much enthusiasm exhibited regarding medical education and legislation. Although the same questions were raised and the same ground gone over as in past years, the physicians seemed to be in closer touch and to feel the necessity of concerted action.

No longer can the grand old State of Missouri be considered at the bottom of the list, for she has made great advances since the meeting of 1909, and we have reason to be proud of her standing, though there is still much to be accomplished.

At this meeting the report of the Committee on Federal and State Regulation of Public Health suggests that a bill be passed that will give recognition of the health interests of the country in the title of a

department, and that within that department there be organized an efficient bureau of health to consist of all public national health agencies, and was adopted, as was also the following resolution as a part of the report of the Committee on Conclusions and Plans of Action:

“Resolved, That the Conference heartily endorses the position taken by the President in his message to Congress in regard to national health legislation and urges on Congress the passage of legislation looking toward such ends.”

Every county society should take this matter up and every auxiliary committeeman in the state should make every effort to interest our senators and representatives in the bill introduced into the United States Senate by Senator Robert L. Owen of Oklahoma. This is known as Senate Bill 6049.

Be it enacted by the Senate and House of Representatives of the United States of America in congress assembled, That there is hereby established a department of public health under the supervision of the secretary of public health, who shall be appointed by the President a cabinet officer, by and with the consent of the Senate, at a salary of twelve thousand dollars per annum, with like tenure of office of other cabinet officers.

SEC. 2. That all departments and bureaus belonging to any department, excepting the department of war and department of the navy, affecting the medical, surgical, biological or sanitary service, or any questions relative thereto, shall be combined in one department, to be known as the department of public health, particularly including therein the bureau of public health and marine-hospital service, the medical officers of the revenue-cutter service, the medical referee, the assistant medical referee, the surgeons and examiners of the pension office; all physicians and medical officers in the service of the Indian bureau, or the department of the interior, at old soldiers' homes, at the government hospital for the insane, and the freedman's hospital and other hospitals of the United States; the bureau of entomology, the bureau of chemistry and of animal industry of the department of agriculture; the hospitals of the immigration bureau of the department of commerce and labor; the emergency relief in the government printing office, and every other agency of the United States for the protection of the health of the people of the United States, or of animal life, be, and are hereby, transferred to the department of public health, which shall hereafter exercise exclusive jurisdiction and supervision thereof.

SEC. 3. That the official records, papers, furniture, fixtures, and all matters, all property of any kind or description pertaining to the business of any such bureau, office, department, or branch of the public service is hereby transferred to the department of public health.

SEC. 4. That the secretary of public health shall have supervision over the department of public health, and shall be assisted by an assistant secretary of public health, to be appointed by the President, by and with the advice and consent of the Senate, at a salary of six thousand dollars a year, with such duties as shall be prescribed by the secretary not inconsistent with law.

SEC. 5. That the secretary of public health shall be authorized to appoint such subordinates as may be found necessary. There shall be a chief clerk appointed at a salary not to exceed three thousand dollars a year, and such other clerks as may from time to time be authorized by Congress.

SEC. 6. That the officers and employees of the public service transferred to the department of public health, shall, subject to further action by Congress, receive the salaries and allowances now provided by law.

SEC. 7. That it shall be the duty and province of such department of public health to supervise all matters within the control of the Federal government relating to the public health and to diseases of animal life.

SEC. 8. That it shall gather data concerning such matters, impose and enforce quarantine regulations; establish chemical, biological and other standards necessary to the efficient administration of said department, and give due publicity to the same.

to be used by any branch of the public service transferred by this act to the department of public health. It shall be the duty of the secretary of public health to provide, on proper requisition, any medical, sanitary or other service needed of his department required in another department of the government.

SEC. 11. That any other department requiring medical, surgical, sanitary or other similar service shall apply to the secretary of public health therefor whenever it is practicable.

County.	Licensed Physicians.	Not Licensed.	Regulars.	Eclectics.	Homeopaths.	Single.	Married.	Own Home.	Homes Encumbered.	Approximate Indebtedness.	Approximate Worth.	Average Annual Income.	Average Age.
1	20	1	20			1	19	12	4	1,000	5,000	1,500	40
2	15		12	3		1	14	12	2	3,000	3,000	1,500	45
3	7		6		1		6	4	2		9,000	1,500	43
4	39		34	4	1	2	37	31	Yes		6,000	3,000	35
5	29		25	4	1	3	25	15	Yes			1,000	45
6	18		16	2			17	7				1,000	45
7	29		24	1		1	30	15				1,000	43
8	29		25	3	1	2	27	12		1,000	1,000	1,200	44
9	67	1	63	4	1		67	30				2,000	40
10	57		48	4	5	2	55	46		2,000		1,000	40
11	11		11				11	7		2,000	4,000	1,500	44
12	23		23				21	20	5			1,500	46
13	16		15	1		3	13	10			5,000	2,000	34
14	30	1	26	4		3	27	25	15	2,000	10,000	1,200	40
15	27	1	25	1	1	3	24	23	7	1,000	8,000	2,000	35
16	24		23			4	20	13	5		2,000	1,500	36
17	26	2	23	2	1	1	25	24		500	3,000	1,750	47
18	14	2	13				14	13			7,000	1,500	35
19	30		28				29	22			5,500	2,250	47
20	27	1	25			5	23	21			15,000	4,000	45
21	40		35	3	2	1	39	27	13	750	2,000	1,500	45
22	45		42	2	1	2	43	43			3,500	1,750	40
23	35		35			4	31	25			1,750	1,200	38
24	27		26	1		3	24	24			2,500	1,750	44
25	21		15	5	1	3	18	15			4,500	1,200	40
26	24	2	23			2	21	21			3,000	2,000	45
27	28	1 or 2	26	2		2	26	22	9 ¹ / ₃	500	10,000 to 15,000	3,000	45
28	30		27		1	4	26	14	3	3,000	6,000	1,800	45
29	17		18			3	14	13	4	8,000	61,000	1,350	45
30	46		46			5	41	25	5	1,500	10,000	2,500	38
31	30		28	1	1	3	?	?	?	?			40
32	18		18			2	16	2			20,000	3,000 to 5,000	45
33	43		42		1	10	33	30	31	1,200, 30% on value.	4,000	2,000	42
34	41		38		3	4 ⁺	36	41				2,700	42 ⁺
35	26		23	1	2	2	24	18		600	2,000	1,800	42
36	42		39	1	2	4	38	35				2,000	50
37	22		20	2		2	20	17	4	300	5,000	800	50
38	16	1?	16				16	16		200	6,500	2,000	41
39	13	1	13			3	10	5	5	³ / ₄ value.		900	45
40	30		24	5	1		30						
41	27	3 ⁺	24	2	1	2	25	20	3	3,004	154,000	1,100	53
42	30		25	2	3	5	25	20	10	1,000	each 5,000	3,000	45
												1,190	17
												1,092	63
												34	102
												1,105	808

Average annual income in 40 counties.

\$1,700

Average age.

42⁺

SUMMARY

Licensed Physicians	1190	98.59
Not Licensed	17	1.41
Regulars	1009	90+.04
Eclectics	63	5+.21
Homeopaths	34	2.80
Single	102	9%
Married	1105	91+%
Physicians Owning Homes	808	68%
Average annual income in 40 Counties.	\$1,760	
Average Age	42 ⁺	

SEC. 9. That the secretary of public health shall establish a bureau of biology, a bureau of chemistry, a bureau of veterinary service, a bureau of sanitary engineering, reporting such proposed organizations to Congress for suitable legislation relative thereto.

SEC. 10. That all unexpected appropriations and appropriations made for the ensuing year shall be available on and after July 1, 1910, for the department of public health, where such appropriations have been made

SEC. 12. That all officers or employees of the government transferred by this act to the department of public health will continue to discharge their present duties under the present organization until July 1, 1910, and after that time until otherwise directed by the secretary of public health or under the operation of law.

SEC. 13. That all laws or parts of laws in conflict with this act are hereby repealed.

More than ever the physician is impressed with the immense importance of protecting the health of the public; this can only be done by education and by laws.

Medical education is still deficient, but there has been a great improvement. The medical man must have a certain preliminary education, and the following are the conclusions of what should constitute the medical education of the practitioner presented to the conference of the Council on Medical Education and of the Committee on Medical Legislation of the American Medical Association:

"Medical education and medical educational standards are not in a satisfactory condition in this country, and, although great improvements have been made in the last ten years, conditions as a whole are unsatisfactory.

It costs more to conduct a modern medical school than the amount which can be obtained from students' fees. The 60 or 70 schools which should survive must receive either state aid or private endowment.

The medical school of the future must be developed as the medical department of a university.

The study of modern medicine demands: (1) a certain preliminary education; as a minimum this should be eight years in the primary school; (2) four years in the high school; (3) at least one year in special preparation in the pre-medical sciences of chemistry, physics and biology; (4) four years in the medical school, two years in the laboratories of anatomy and physiology, pathology and pharmacology; two years in clinical work in medicine, surgery, obstetrics and the specialties; and finally (5) at least one year of practical work as an intern in a hospital. And the time has about arrived when provision should be made for including this hospital year in the medical course.

The state licensing boards of the various states should have the legal power to insist on a proper preliminary education and a proper medical course, and they should have the right to refuse recognition to work done in colleges not offering proper medical instruction and the examination for medical licensure should be of such a practical character and so thorough as to determine the ability of the applicant to practice medicine. This power is necessary in order to protect the people of the state against ignorance and quackery. No public health measure is of greater importance than that aimed at securing properly qualified medical practitioners.

In order to secure proper medical standards throughout the country we must have the united support of the state boards, the medical profession, the medical schools, the universities and, what is most important of all, public opinion.

In order to obtain this support we must carry on a campaign of education showing what the existing conditions are and what changes are needed in order to secure conditions which will best safeguard public health, secure proper medical attention for the sick and aid in the advancement of medical knowledge."

The committee feels incumbent upon itself to call the attention of the profession to the great good that has been and can be accomplished by the open meetings of the county, district and other local societies. When the public are educated along sanitary and hygienic lines, particularly respecting tuberculosis, venereal diseases, cancer, typhoid fever and other decimating diseases, the time is ripe for the physicians to exert themselves with renewed vigor and enthusiasm in disseminating necessary information. Every physician should be willing to address meetings of the following character referred to in the following extracts from the minutes of the House of Delegates of the American Medical Association, Atlantic City, N. J., June 10, 1909:

WHEREAS, The American Medical Association, not only as one of its declared purposes, but by numerous lines of activity, many of them connected with the

Section on Hygiene and Sanitary Science, stands committed to the education of the public with respect to the nature and prevention of disease; and,

WHEREAS, The demand for such popular education with respect to tuberculosis, cancer, typhoid fever and other decimating diseases has become urgent; therefore, be it

Resolved, That all county, district and other local medical societies be, and they are hereby, requested to hold annually one or more open meetings to which the public shall be invited to attend and participate and which shall be devoted to a discussion of the nature and prevention of disease and to the general hygienic welfare of the people.

The committee wishes to endorse in the most emphatic terms the missionary crusade now sweeping the country and engaging the attention of physicians, sociologists, educators, and especially the laity everywhere, against the "black plague." At the proper time the committee has resolutions to offer relative to the subject.

In order to obtain certain statistics regarding the medical profession of our state the Committee on Public Policy and Legislation decided to send to the secretaries of the county medical societies a request for the following information, which appear in the form of appended paradigm. Although the returns are not complete by any means they, however, will serve to form a basis for further work.

How many legally licensed doctors in the county?

Are they not licensed?

How many regulars?

How many eclectics?

How many homeopaths?

How many single?

How many married?

How many own their own homes?

How many have homes encumbered and to what extent?

Approximately to what extent are in debt?

Approximately what are they worth financially?

The average annual income of each?

The average age of the physicians in your county?

How many have a preparatory English education?

How many are college graduates?

How many have degrees and what are they?

How many have been sued for malpractice?

How many have occupied public positions?

The time has come when the medical profession should express itself in no uncertain terms against the use of preservatives which are unnecessary and detrimental to the public health, for if food is fresh and pure the article does not need preservatives; if decayed, rotten and unwholesome it is necessary and the percentage of preservatives required is injurious to health.

This association should put itself upon record as condemning the use of benzoate of soda, boric and salicylic acid and their compounds, and all chemicals used as preservatives. At the proper time your committee will introduce suitable resolutions to this effect.

R. M. FUNKHOUSER, Chairman.

N. P. OVERHOLSER.

C. R. DUDLEY.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION.

To the President and House of Delegates of the Missouri State Medical Association:

Your Council on Medical Education desires heartily to congratulate the Missouri State Medical Association upon the record it made last year in favor of advanced medical education. Most favorable criticisms of your action have been received, not only from prominent men of the profession and laity of Missouri, but

also from many interested in education matters outside of the state. You, then, by a most flattering vote, adopted the scheme of medical education recommended by the Council on Medical Education of the American Medical Association, which was as follows:

MINIMUM REQUIREMENTS.

- 1. Preliminary requirements to be an accredited high school education, or its equivalent, such as would admit the student into one of our recognized universities.
- 2. Preliminary requirements to be passed on by a state official, such as the superintendent of public schools, and not by an official of the medical college.
- 3. A medical education in a medical college having four years of not less than 30 weeks each year of 30 hours a week of actual work.
- 4. Graduation from an approved medical college required to entitle the candidate to an examination before a state examining board.
- 5. The passing of a satisfactory examination before a state examining board.

ADVANCED REQUIREMENTS.

That, as soon as practicable, an additional year be added, devoted to the study of physics, chemistry, biology and one or two modern languages. This additional year's studies to be taken in a medical college or a college of liberal arts.

THE IDEAL STANDARD OF REQUIREMENTS.

The ideal standard for a degree of doctor of medicine to consist of the following requirements:

- (a) A preliminary education sufficient to enable the candidate to enter one of our recognized universities.
- (b) A five-year medical course, the first year of which should be devoted to physics, chemistry, biology and one or two modern languages.
- (c) A sixth year as an intern in a hospital or dispensary should then complete the medical course.

Your Association also, by its vote, made the Committee on Medical Education permanent, by requiring each member to be appointed by the President for three years. One member retires each year. This we deem a wise enactment, as thereby the members become acquainted with the important demands of and advancements in medical education, and are better able to make more valuable annual reports.

Although somewhat outside the duties of this committee, we would venture the suggestion that other of your committees, such as those on Public Policy and Legislation, Tuberculosis, etc., could do better work if made thus permanent.

In order to get a better line upon the work being done by the Council on Medical Education of the American Medical Association, and to become acquainted with the trend of thought on medical education, as voiced by the prominent men in attendance, your committee was represented at the meeting of the Council on Medical Education, held in Chicago, March, 1910. The presence on that occasion of so many leaders in the profession and such noted educators as the Hon Elmer Ellsworth Brown, United States Commissioner of Education; Henry S. Pritchett, President of "Carnegie Foundation for the Advancement of Teaching;" J. G. Schurman, President of Cornell University; Dr. Victor C. Vaughn, Dean of the Medical Department of the University of Michigan; George E. MacLean, President of the Iowa University; Cyrus P. Northrop, late President of the Minnesota University; Prof. Ernest Freund, Law Department, Chicago University; Hon. Harry Olson, Chief Justice of Municipal Court, Chicago, and many others of equal prominence, all discussing medical education, spoke volumes for the importance of the subject and indicated the profound interest with which it was regarded by both the laity and the profession. It was markedly in line with the

great "educational boom," which has spread over the country during the last few years, more especially throughout the southland, to give the people better educational facilities, both in general and professional schools. These annual meetings conducted by the Council on Medical Education are veritable educational "love-feasts," and should be attended by the Committee on Medical Education of every state association.

At its 1910 meeting, it was shown that 138 medical colleges and 22 sectarian schools are still operating in the United States, almost as many as exist in all the rest of the world.

MEDICAL COLLEGES OF THE WORLD

Nation.	Colleges	Nation.	Colleges.
Argentina	2	China	3
Australia	3	Columbia	1
Austria	7	Cuba	1
Belgium	4	Denmark	1
Brazil	3	Egypt	1
Canada	8	England	21
Chile	1	France	5
Germany	20	Norway	1
Greece	1	Peru	1
Guatemala	1	Portugal	2
Hungary	2	Roumania	2
Iceland	1	Russia	10
India	4	Scotland	8
Ireland	4	Spain	9
Italy	20	Sweden	3
Japan	7	Switzerland	5
Mexico	1	Syria	2
Netherlands	4	Uruguay	1
New Zealand	1	Wales	1

Total medical colleges in all foreign countries..... 172
Total in the United States alone..... 138
Counting also the 22 sectarian schools, the graduates of which treat diseases, gives the United States a total of 160.

Exclusive of the sectarian schools, these 138 United States colleges graduated 4,442 physicians in the year 1909. Half this number of schools and one-third of the graduates would meet all the requirements of the country.

The annual inspection by the Council on Medical Education shows that almost half of these colleges are doing unsatisfactory work. In several schools, only lecture-room, blackboard and table were found. A number only drill their students in answering questions asked at state board examinations, having no use for laboratories or clinics. Many graduates of these schools were noted as having successfully passed state examining boards. Others were conducted as night schools, requiring four-year course of 30 or 40 weeks, with 3 to 4 hours' daily work, with but meager laboratory and clinical facilities. One of these fake institutions has existed for some years in Missouri, but, thank God, its death is announced to take place this year. On the other hand, some of the highest grade medical schools in the world were found in the United States.

GRADUATES OF MISSOURI SCHOOLS, EXAMINED 1909, BY STATE BOARD OF HEALTH

Name of College.	Total Examined.	Passed.	Failed.	Per Cent. Failure.
Barnes, St. Louis.....	43	29	14	33
College of P. and S., St. Louis	31	15	16	52
Ensforth, St. Joseph.....	10	7	3	30
Hahnemann, Kansas City.....	2	1	1	50
Homeopathic, St. Louis.....	4	2	2	50
St. Louis University.....	34	31	1	2.6
University Med., Kansas City...	31	23	12	32.4
University of Missouri.....	3	3	0	0
Washington University.....	44	41	3	6.8
American Medical, St. Louis...	3	3	0	0

A compilation of the results of all the state boards' examinations of medical college graduates is made annually by this Council, wherein is noted the number of graduates who passed and failed from each school. This table is published each year in *The Journal of the American Medical Association*, and pre-

sents a relatively fair standing of the various colleges. The Secretary of the State Board of Health has kindly furnished your committee with the preceding tabulated statement of the result of the examination by that board of the graduates of the medical schools of Missouri.

Consideration of this table, as well as the reports of other states, generally shows that the medical schools connected with universities have the smallest percentage of failures and hence are doing the best work.

The Secretary also states that the Missouri State Board of Health at the present time considers the following Missouri medical schools as creditable: Washington University, University of Missouri (which teaches only the first two years of the medical course), St. Louis College of Physicians and Surgeons, American Medical College (St. Louis), University Medical College (Kansas City), Ensworth Medical College (St. Joseph), Barnes Medical College (St. Louis), and the Medical Department of the St. Louis University. We would add that the inspection, made the same year, by the Council showed only four of these schools as acceptable, the balance needing more or less improvement to do creditable work.

The osteopaths have a board of examiners of their own, and, according to the Missouri statutes, are not considered practitioners of medicine and surgery.

Another interesting feature of the work of the Council on Medical Education during the past year is the tabulation by states of the ratio of physician to the population:

PROPORTION OF PHYSICIANS TO POPULATION

State.	Population.	Physicians.	People to each Physician.
Alabama	2,112,465	2,287	924
Arizona	154,152	246	626
Arkansas	1,476,582	2,535	583
California	1,729,543	4,312	401
Colorado	653,506	1,690	386
Connecticut	1,054,366	1,424	740
Delaware	199,353	220	906
District of Columbia	322,212	1,231	262
Florida	679,742	786	865
Georgia	2,557,412	2,887	886
Idaho	227,670	343	664
Illinois	5,717,229	9,744	587
Indiana	2,808,115	5,036	557
Iowa	2,192,608	3,624	605
Kansas	1,703,002	2,650	642
Kentucky	2,406,859	3,708	649
Louisiana	1,618,358	1,798	900
Maine	724,508	1,198	605
Maryland	1,319,132	2,012	655
Massachusetts	3,162,347	5,577	567
Michigan	2,666,308	4,109	649
Minnesota	2,162,726	2,204	981
Mississippi	1,786,773	2,054	870
Missouri	3,491,397	6,323	552
Montana	333,695	417	800
Nebraska	1,069,579	1,776	602
Nevada	42,335	177	239
New Hampshire	443,140	680	652
New Jersey	352,522	2,544	925
New Mexico	229,937	367	626
New York	8,706,039	14,117	617
North Carolina	2,142,084	1,761	1,216
North Dakota	536,103	552	971
Ohio	4,594,240	7,838	585
Oklahoma	1,592,401	2,703	581
Oregon	505,339	782	646
Pennsylvania	7,241,716	11,056	655
Rhode Island	521,302	720	724
South Carolina	1,510,566	1,141	1,324
South Dakota	498,077	607	820
Tennessee	2,248,404	3,303	681
Texas	3,780,574	5,789	653
Utah	336,122	359	908
Vermont	353,739	663	533
Virginia	2,032,567	2,215	917
Washington	662,886	1,404	616
West Virginia	1,135,206	1,608	706
Wisconsin	2,356,874	2,518	936
Wyoming	109,244	202	541
United States Army, Navy and M.-H. Service		915	.....
Total	88,043,455	134,402	655

These figures are taken from 1909 estimate made by the Census Bureau and from the second edition of the American Medical Directory, and necessarily make the number of people (655 to one physician) too great. To the list of practicing physicians should be added the large number of drugless healers, such as osteopaths, faithheirists, Christian scientists, magnetic healers, followers of the Emmanuel movement, *ed id omne genus*, and you will have the number caring for the sick easily reaching 200,000 or more. Divide this number into the population and you will have only 440 people to each physician. In other countries, where the economic side of the practice of medicine has been longer and better studied, it has been found that to every country practitioner there should be 1,000 people, and to the city practitioner 2,000 people, or an average of 1,500 to each physician. It is thus readily proved that we have three or four times as many physicians in this country as are needed. No wonder that their average income is cut to \$600 or \$700 per year. Think of it, working seven days per week, on all holidays and often at night for less than \$2 per day. No wonder that their credit is bad at the medical supply houses, or that a national organization exists that has a deadbeat list of 20,000 names of doctors; and the President of this organization says that the list should contain about 20,000 more. These figures speak ill of our morals as well as our incomes. It is certainly timely that the organized profession should be looking after the economic condition of the physician, and we hope that when Brother Funkhouser gets returns from the little slips sent out, he will be able to evolve plans for the betterment of the profession.

Your by-laws demand that this committee shall make an annual report on the condition of medical education in the state.

On this subject we would report progress. There are fewer medical colleges than last year and the existing ones are reported as having added improvements and doing better work. Still the situation is not altogether satisfactory. Missouri has too many medical colleges. The cost of operating these colleges acceptably is greater than the income from students' fees. In twenty-five leading medical schools it costs from \$250 to \$700 to teach each student in the sophomore and freshman years. President Schurman, of Cornell University, says it costs them between \$2,000 and \$3,000 for every medical student graduated from their medical department.

All unendowed medical colleges should join together and unite themselves to some university. This has been successfully done in many states. All the medical colleges of Indiana united and became the medical department of the Indiana University. In Kentucky all the medical schools have merged into the University of Louisville. The same has occurred in Cincinnati, Iowa, Minnesota and other places, thereby lessening the expense and increasing the efficiency of the colleges. Your committee would suggest that this Association put itself on record by passing a resolution to the effect that it is contrary to the best interests of both the public and the profession to establish any new medical college in this state unless said school is endowed and connected with some reputable university.

Your committee believes that the time has come, in the furtherance of medical education and the uplifting of the profession, when an advanced requirement should be added to the present preliminary requirements for the study of medicine. An education corresponding to an accredited high school course is now required. We would both suggest and urge that the State Association pass a resolution recommending that to the present minimum requirement, one year, devoted to the study of chemistry, physics and biology, be added. This year's work may be taken in a college of liberal arts, or in a medical school. There are many arguments in favor of this advanced requirement: It is to the interest of the public that thoroughly qualified medical men be

furnished for the protection of public health and for the prevention and cure of disease. With or without state endorsement, more than fifty of the best medical schools of the country, beginning this fall, will demand this additional requirement of their matriculants. Among the number are three Missouri schools, viz.: The Missouri State University, the Washington University and the St. Louis University. Seven states have already adopted it. The situation, then, is this: Will the Missouri State Medical Association pass the suggested resolution and thus throw its influence in favor of advanced medical education—in favor, perhaps, of fewer but better qualified physicians—or will you do nothing and thus tacitly clog the professional wheels of progress? All the state universities, including the University of Missouri, are demanding two years of college work as a preliminary for entrance to their medical departments. Ought not, then, our State Examining Board be justified in demanding one such year's work? Then the physicians of the United States would stand on an equal footing in education with those of England, France and Germany, a condition hitherto never recognized. Perhaps the strongest argument in favor of requiring one year of university work is that it will estop all medical colleges, and especially those seeking students regardless of qualifications, from accepting inferior high school certificates. The quality of a high school certificate has ever been a source of dispute and wrangle, owing to the endless variety of these secondary schools. To put this advance requirement into effect, the present state laws must needs be modified. For wholesome reasons it is of the utmost importance that these advanced requirements with an acceptable medical course should apply to every one treating the sick and afflicted, either bodily or mentally. This law would then apply to all the sects in practice instead of to physicians alone. In Canada, under these conditions, all the eclectic and homeopathic schools have closed. In like manner they are rapidly dying out in the United States. High requirements would soon rid the state of the osteopaths. In New Jersey they were recognized as practitioners of medicine and allowed to register as such as soon as they passed the state examination board. So far not an osteopath has applied for license.

Of great importance, in furnishing the public with practically educated physicians, is the manner in which the examination of graduates is conducted by our State Board of Examiners. There are four recognized methods of conducting these examinations, viz., written, oral, laboratory and clinical. The written examination is the easiest, but, in the opinion of your committee, the least efficient in finding out the real knowledge of the applicant. All that is necessary to pass such an examination is a good memory and familiarity with a "quiz compend." Such an examination is altogether favorable to the graduates of low grade medical colleges. On the other hand, laboratory and clinical examination would show what the candidate knew and could do, and how well he could make a diagnosis and apply treatment. This method is in vogue all over Europe and Canada, is working very satisfactorily in some of our own states, and in the opinion of your committee, should be put in operation by the Missouri State Board of Examiners. A further improvement would be the divided examination, which permits the student desiring to do so to take an examination on branches studied at the end of his second medical college year. This enables him to determine whether he is sufficiently grounded in the fundamental branches before taking up the clinical work. This plan is generally followed in schools with graded course.

Last year we recommended the organization by the county societies of post-graduate classes for systematic study of the various phases of medicine. It is gratifying to note that this plan has been adopted and found successful by several, among whom are the following counties: Boone, Buchanan, Caldwell, Cass,

Greene, Henry, Johnson, Lafayette, Macon, Nodaway and Vernon. In order to encourage this kind of work, the State Anatomical Board has authorized its secretary, Dr. C. M. Jackson, Columbia, to furnish cadavers for dissection to post-graduate classes organized for this purpose under the auspices of the county medical societies. Arrangements have already been made to furnish material to classes in Jasper, Pettis and Vernon counties.

In order to provide more extended facilities in the way of medical literature, to organizations of individuals who may desire them for study, the State University has thrown open its medical library as a free circulating library to the medical profession. Any member of the State Medical Association may (by paying transportation charges) borrow any desired book for two weeks, subject to a renewal for two weeks if not needed elsewhere. Special arrangements will be made for loan collections to the county post-graduate classes. The library contains about 4,000 volumes and over 100 periodicals, many in complete sets. A complete catalogue of the books and periodicals in the library has recently been published, and will be furnished free upon application to the librarian.

No report on medical education in Missouri would be complete at the present time that did not mention the Medical Department of Washington University and note her plans for improvement. As recently announced in the press, \$5,500,000 are assured to her through the generosity of several St. Louisans, to build and endow a medical school and hospital on a scale unsurpassed, if equaled, in this country. Ground has been bought near beautiful Forest Park. Buildings are to be erected on elaborate and scientific plans, both for teaching and hospital purposes. Already a number of the most prominent men in the country, eminent for their professional standing and teaching ability, have been added to her already large and efficient faculty.

Such an institution, located in the central city of the country, in the commonwealth of Missouri, with modern buildings, fully equipped laboratories, well-managed hospitals and clinics, high standard of preliminary and medical requirements, and managed by learned experts in every department, is already a success and marks a new epoch in medical education in the Middle West. Respectfully submitted,

B. M. HYPES,
C. LESTER HALL,
C. M. JACKSON.

REPORT OF THE COMMITTEE ON OPHTHALMIA NEONATORUM.

Mr. President and Members of the Missouri State Medical Association:

At the present day it is not necessary for your committee to tell you of the danger and prevalence of ophthalmia neonatorum, nor of the fact that it is a preventable disease, and usually, where it has developed, when taken in time, a curable disease.

The percentage of those blind from this cause in different countries varies widely.

More interesting to you is the fact that in the Missouri School for the Blind 26 per cent. of the pupils have lost their sight from ophthalmia neonatorum.

The statistics from this school have been about the same for the last fifteen years, and probably give an accurate estimate of the conditions throughout the state.

Ophthalmia neonatorum, as it is recognized clinically, is not always the result of gonorrheal infection.

Stephenson, London, in 1,829 cases found the gonococcus in only 64 per cent. and Stephen Mayou in 1,400 cases found the gonococcus in only 63 per cent. The other 36 per cent. being due to the pneumococcus, staphylococcus, etc.

Experience has confirmed what our scientific deductions had led us to expect, viz., that the use of antiseptics, which destroy the gonococcus and other bacteria, in the conjunctival sac immediately after birth, prevents the development of ophthalmia neonatorum.

Probably the best of these measures, all things considered, is the dropping of two or three drops of a 1 per cent. silver nitrate solution into the eyes immediately after birth. Other methods are the use of argyrol 25 per cent., protargol 10 per cent., and bichlorid of mercury 1/2,000. All of these are to be combined with perfect cleanliness of the lids and face.

Another means of prevention would be to determine whether the gonococcus was present in the vaginal secretion of the mother shortly before the birth of the child. If it was found, such antiseptic douches could be used prior to the delivery of the child as the obstetrician should consider not detrimental to labor and yet sufficient to render the vaginal canal aseptic.

If no gonococci or other infectious germs were found the eyes and eyelids should be cleansed, and some mild antiseptic used. Argyrol 10 per cent., or even so mild a remedy as boracic acid solution 2 per cent.

Your committee sent letters to the secretaries of the boards of health of all the states and territories, asking them if they had any laws in regard to ophthalmia neonatorum, and if they had, what the laws were.

We have received forty-three replies; twelve of the states and territories have laws for the prevention of blindness from ophthalmia neonatorum.

These laws are substantially the same as our law, which is as follows:

"Be it enacted by the General Assembly of the State of Missouri, as follows:

"SECTION 1. Should one or both lids of either eye or of both eyes of an infant become red or swollen, or should there be any discharge from either eye or from both eyes, at any time within three weeks after its birth, it shall be the duty of the midwife, nurse, or other person having charge of said infant, at once, unless for good cause shown, to report the condition of said eyes to a legally qualified practitioner of medicine.

"SEC. 2. Every health officer shall furnish a copy of this Act to each and every one who is known to him to act as midwife or nurse, in the city or town for which such health officer is appointed, and the Secretary of State shall cause a sufficient number of copies of this Act to be printed, and shall supply the same to such health officers on application.

"SEC. 3. Any failure to comply with the provisions of this Act shall be a misdemeanor, and shall be punishable by a fine of not less than ten and not more than one hundred dollars, or by imprisonment not to exceed six months, or by both such fine and imprisonment.

"SEC. 4. All Acts and parts of Acts inconsistent with this Act are hereby repealed."

Passed and signed by Governor Stone in April, 1895.

Some of the states, as Massachusetts, require the health officer to see that the child is treated, even if he himself has to treat it.

The prevention of blindness from ophthalmia neonatorum must be accomplished by education; chiefly the education of physicians, midwives and nurses. Your committee addressed a circular to the parents or guardians of the children blind from ophthalmia neonatorum in the Missouri School for the Blind, asking where the children were born, and whether the mother was attended by a physician or only by a nurse or midwife. We received twenty-five replies; fifteen were born in small places or in the country, and ten in cities. In fifteen cases a physician was in attendance; in ten only a midwife or nurse. This seems to indicate that the graduated physician is often careless in such cases, or ignorant of the methods of preventing or treating ophthalmia neonatorum.

Placing a copy of the Missouri law in the hands of every physician, nurse and midwife in the state would be a means of education as to the importance of the disease. A conviction under it of a negligent nurse or midwife would be a still greater educator of the nurses and midwives.

But it will be very difficult to secure testimony to obtain a conviction, as the one who knows of the violation of the law is usually the physician to whom the child is finally brought, and he will feel that he has done enough if he cures the child, without taking the time and trouble to prosecute the nurse or parents.

The Missouri law has been known to a good many physicians for some time. It was read at the meeting of this Association in 1895 and was published in the *St. Louis Medical Review* of July 29, 1895, and a little later in the *American Journal of Ophthalmology*, yet there has never been any attempt to prosecute any one under it, probably for the reason stated above.

The registrar or health officer is the best qualified person to enforce it.

Arizona has adopted what seems to us a wise educational measure. On the back of every birth certificate is printed a warning in regard to ophthalmia neonatorum, and recommendations as to its prevention.

Rhode Island requires the birth certificate to state whether any use was made of a silver salt in the eyes as a prophylactic.

New York and Rhode Island furnish a small quantity of a 1 per cent. solution of silver nitrate with a special dropper, to be used by the physician in every confinement case. The Secretary of the New York State Board of Health thinks this has been very useful.

Several states issue to the health officers, physicians and people of the state, circulars on the subject of ophthalmia neonatorum.

We would recommend that our law be amended so that it would require:

That the report of cases of ophthalmia neonatorum be made to the registrar, the health officer, or if there is neither, to a regularly qualified physician.

That the registrar or health officer be required to treat cases of ophthalmia neonatorum, if other competent service has not been secured, or if he cannot secure it.

That the Missouri State Board of Health supply to the physicians of the state, upon application, sixty minims, dark colored, ampules filled with a 1 per cent. solution of silver nitrate, also a suitable dropper, to be used in their confinement cases, as the conditions may indicate.

That each birth certificate state whether or not precautions against ophthalmia neonatorum had been taken.

That on the back of each birth certificate the following or something similar be printed:

Ophthalmia neonatorum causes about one-fourth of all blindness, and is usually caused by infection of the child's eyes by the vaginal secretions of the mother.

To prevent it cleanse the eye-lids, face and hands of the child thoroughly and drop into its eyes two or three drops of a 1 per cent. (or five grains to the ounce) solution of silver nitrate, as soon as possible after the birth of the child. If there is special reason to suspect gonorrheal infection, an hour later wash the eyes out with a five grain to the ounce boracic acid solution and repeat the silver nitrate treatment.

There is special legislation on this subject providing a penalty for negligence.

Respectfully submitted,

M. H. POST,
J. C. SHELTON,
GUY TITSWORTH.

DISCUSSION

Dr. Green, St. Louis, said there seemed to be great need for calling attention to this serious trouble. The laws in various states in regard to the prevention of

ophthalmia neonatorum aimed to bring cases to light in time to make treatment effective. As yet no very good results had been obtained through the adoption of these laws. Even in Massachusetts and New York, where the laws were excellently framed, ophthalmia neonatorum still existed and the percentage of children who had become blind from this disease was practically as large now as it was some fifteen or twenty years ago, at which time none of those laws had been passed. It appeared to Dr. Green that something should be done to arouse the profession and midwives, and that all doctors and midwives should realize that when ophthalmia neonatorum has developed the only safety lies in immediate, active treatment. Such suggestions as had been made by the committee were valuable. The Massachusetts Commission for the Blind had started a campaign of publicity among the laity and had prepared a very attractive pamphlet, giving illustrations of babies who had unnecessarily become blind from this disease. In the Missouri School for the Blind 25 per cent. of the pupils are blind as a result of ophthalmia neonatorum. Every one of these pitiful little children might to-day be a seeing child if a prophylactic had been used at the time of birth, or intelligent treatment had been used immediately after the first signs of disease appeared.

Dr. Lichtenberg, Kansas City, thought that those who practiced in the larger cities came in contact with the condition very often, and in the last three or four days a case had come to the speaker's notice. The child appeared at the clinic about the seventeenth day after birth, with a history of running of the eyes at the third day. The case had been attended by a midwife and she told the mother that the child had a cold. Fortunately, the cornea was not injured very much and the child recovered. Dr. Lichtenberg thought this campaign of publicity was an important thing and that it would do a great deal of good to have articles published in magazines and journals that went into the homes. The *Ladies' Home Journal* had written a very frank article on the subject recently. He believed that a copy of these resolutions ought to be in the hands of every nurse, physician, midwife and charity worker; in fact, anyone who came in contact with this class of cases. In Lichtenberg's opinion, the resolutions that had been adopted by the House of Delegates the morning previous should include these resolutions. These recommendations of the Committee on Ophthalmia Neonatorum should be brought before the public, who should meet with the members of the profession and participate in the discussion. It was certainly too bad that the innocent must suffer for the sins of the guilty, and it was the physician's duty to stand as guardian for the innocent child. There was no other way in which to emphasize the importance of this matter. In every large community the physician should make it his duty to look after these cases.

Dr. John Green, Jr., St. Louis, said that it certainly appeared to him that the physicians in general were not careful in preventing the ravages of this disease, because, as shown in the report of twenty-five replies received from the parents of children who had become blind from ophthalmia neonatorum, fifteen of these cases had been attended by regular, qualified physicians, and only ten cases had been attended by midwives. He recalled one case where the physician had paid practically no attention to the child's eyes; finally, serious corneal ulceration ensued and the cornea perforated. This indicated that it was not only the midwives and nurses who were in ignorance, but a great many surgeons and physicians as well.

Dr. J. C. Shelton, Chillicothe, who was a member of the Committee on Ophthalmia Neonatorum, explained that Dr. Post had spent a great deal of valuable time in arranging the report and in gathering information from the different state secretaries, and one could observe from the report that most of them had been very kind in giving him as much information

as possible. Dr. Post had also written to a great many parents of children who had had this disease. As a member of the committee, Dr. Shelton wished to say that the work done by Dr. Post on this report had been quite laborious, and he had done practically all of it himself. The entire committee had met and formulated the report and had decided that the best and most urgent thing to do was to educate the physicians in the state first. Then the matter should be brought before the public. In his own experience as a general practitioner, and in special work, he had discovered that a great many practicing physicians of the state—in fact the majority of physicians—did not know that a law was on the statute book. One reason that physicians had not used prophylactic measures was that they did not know there was such a law. The idea of the committee in formulating this report was that it would result in the enactment of a new law in regard to the registration of births. If every physician were required to answer a question as to what method of prophylaxis was used he would certainly observe these cases. Dr. Shelton said the committee thought the law should authorize the state secretary or the Board of Health to distribute leaflets to every practitioner or midwife. The people at large were, in fact, willing enough to do anything the physicians and midwives were prepared to do. The physicians did not practice prophylaxis because it was a little trouble, and there was no provision made to do it easily, and they just neglected it. Therefore the committee thought that the best way to bring the matter before the public was just as had been suggested.

Dr. Clarence Loeb asked Dr. Shelton whether there was any provision compelling the physician to use an antiseptic after the birth of the child.

Dr. Shelton replied that he did not think they could compel the physician to use any method to which he might have objections. For instance, some physicians held that the dropping of the silver nitrate frequently set up an irritation, and if a physician claimed that he held this as his belief he could not be compelled to use that treatment.

Dr. Guy Titsworth, Sedalia, did not think that any law would be held constitutional that would compel a physician to use any certain method.

Dr. Green thought the treatment for ophthalmia neonatorum would include irrigations with salt solution, or some other form of lavage. The physician who did not use silver nitrate prophylactically and therapeutically might have very good reasons for his deviation from that method, but he fancied that the majority of oculists would hesitate before assuming the responsibility of omitting such an efficient agent as silver nitrate from the treatment. Frequent washing of the eyes might be used as a valuable adjunct, but it would be unwise to rely exclusively on such a method. Dr. Green called attention to the fact that there was no penalty attached to physicians under the law, as it specified only nurses and midwives. There was not much use in penalizing one who was not a physician while the physician, who was often equally responsible, escaped the penalty. Those who were not physicians were the ones who were required to report those cases. The legally qualified practitioner, it was assumed, was qualified to handle these cases.

Dr. Loeb said that the point that he had tried to make in his remark was this: The state had the right, or at least assumed the right, to placard the houses in all infectious cases. Therefore, could they not compel the nurses and midwives to use this specified treatment in every case? He was of the opinion that Christian Scientists were compelled by law to employ some form of scientific medical treatment in cases of diphtheria, but he was not certain that his understanding was correct in regard to this.

Dr. Guy Titsworth, Sedalia, said that he had looked the matter up very thoroughly. A few years ago a follower of Christian science failed to use antitoxin on

a child suffering with diphtheria. When the case was reported the Federal authorities said that inasmuch as it was their doctrine not to apply medication of any kind, they would not go so far as to compel any prescribed treatment for diphtheria; therefore, you cannot compel the use of antitoxin.

Dr. Loeb wished to know if they could not compel vaccination for smallpox, under the Missouri laws. There was a law to this effect in New York.

Dr. Tittsworth replied that there was no compulsory law in Missouri for the vaccination in cases of smallpox, but that New York had enforced such a law.

Dr. Shelton explained that the object of the committee in naming these various suggestions was to educate, in a way, not only the nurses and midwives, but also the physicians, and to make them more careful. He believed that most of the physicians recognized this condition, if they cared to look for it, and they knew the treatment for it.

Dr. Shelton thought that the negligence among physicians to recognize these cases was due to carelessness rather than to ignorance.

REPORT OF COMMITTEE ON TUBERCULOSIS.

To the Members of the Missouri State Medical Association:

A report was made by your Committee on Tuberculosis last year showing something of what had been done in this line by our state and by some of our cities, notably by the city of St. Louis. Certain recommendations or suggestions were offered as to what, in the opinion of the committee, should be undertaken by the state and by some of its municipalities. The chairman of that committee, who happens to be chairman again this year, was not sufficiently familiar with the workings of the Association under its present law to realize that no action could be taken on these recommendations excepting by the House of Delegates, that the Association itself had no right to do anything except to listen to papers and discuss them and to elect officers. Not being a member of the House of Delegates your chairman did not consider that he had any business at the meeting of the House, did not know it was perhaps his duty to appear before that body and ask for action on these recommendations. Therefore, naturally enough, no action was taken. Perhaps, under any circumstances, it might not have been thought wise to adopt the same.

This year your committee proposes again very briefly to report progress on tuberculosis work in Missouri and once more to submit the suggestions previously made.

The State Sanatorium for incipient tuberculosis at Mt. Vernon has passed through another reasonably successful year of its history. It has completed the erection of a large and admirably equipped domestic building, sufficient to serve the wants of the institution for many years to come. This building contains kitchen, dining room, refrigerator plant and servants' quarters, and is in every respect up to date. The construction of a new laundry building has been begun. A thoroughly sanitary sewer system has been put in. No increased accommodation has been provided for patients, to the great regret of the management, owing to the withholding, on the part of the state, by reason of lack of funds in the state treasury, of a part of the building appropriation made by the last legislature. The amount thus withheld was \$35,000. It is believed, however, that this sum will soon be released and that an infirmary for the accommodation of at least sixty patients can then be promptly erected. The results of treatment of patients at the sanatorium has been equally successful with those previously reported, and, on the whole, have been satisfactory. Much better results could be reached if physicians who are examiners for the sanatorium in our various counties would exercise more care in recom-

mending for admission only the early cases of tuberculosis.

Mention was made in last year's report of the erection of a "Municipal Commission on Tuberculosis" for the city of St. Louis, consisting of seven prominent citizens of that city, only one of whom is a physician, whose duty, in the words of the ordinance, are "To investigate and study the conditions favoring the spread of tuberculosis in St. Louis. To make recommendations for the prevention and treatment of the disease; the care and cure of those suffering therewith. These investigations and recommendations to be made public by means of reports, books, pamphlets, circulars, lectures, public meetings, and in the display of Tuberculosis Exhibits, which will show by charts, diagrams, photographs and models, everything pertaining to tuberculosis which will be of common interest and knowledge to the people of St. Louis."

This commission being liberally supplied by the city with funds wherewith to carry on its work, has been very active and efficient in accomplishing the same. According to their forthcoming annual report it will appear that during the year 1909, 60 outdoor meetings were held under the auspices of the commission, covering all parts of the city. Up to March 1, 90 indoor meetings had been held during the winter season in churches, before lodges, in public and parochial day schools and night schools, public libraries, factories, etc. Five displays of the Tuberculosis Exhibit were made between October and March in vacant stores in crowded parts of the city. By April 1 not less than 300,000 copies of papers, pamphlets, bulletins and circulars will have been distributed, as well as some 650,000 hand bills, leaflets, etc.

The value of this educational campaign is beyond the power of computation. It is vastly to the credit of the city and places St. Louis in the front rank of cities doing effective antituberculosis work. Quite recently the St. Louis Society for the Relief and Prevention of Tuberculosis (a different body from the Municipal Commission) has secured ten acres of ground as well as a building near Kirkwood for the establishment of a sanatorium for incipient and curable cases of tuberculosis. The Board of Aldermen of Kirkwood has sanctioned the project, which is to be operated entirely on philanthropic principles and is in no sense a commercial undertaking. It is to be supported by annual subscriptions and donations from those interested in this work. The personnel of the medical staff, embracing the names of many of the most capable and best known physicians of the city, is itself sufficient guarantee of the quality of service that will be furnished.

In Kansas City a tuberculosis pavilion was erected last fall on the old City Hospital grounds by the generosity of one of its citizens, Mr. William Volker, for the care of early and curable cases. The cost of the same, with equipment, was over \$7,000. The expense of maintenance is borne partly by the city and partly by the Jackson County Society for the Relief and Prevention of Tuberculosis, the society being responsible for the management of the institution. During the six months since its opening it has done a good work, caring for about forty patients, a number of whom have been discharged greatly improved if not with the disease arrested and able to return to work.

It may be mentioned incidentally that before Christmas the ladies of the Tuberculosis Society raised the sum of \$1,000 by the sale of Red Cross stamps, which sum went toward the support of the pavilion.

At a recent municipal election in Kansas City bonds to the amount of \$50,000 were voted for the erection of a tuberculosis hospital, which will, to a considerable degree, take the care of that class of patients out of the hands of private charity.

At a recent conference of superintendents and managers of the Missouri State Hospitals for the insane held at Kansas City, the question of the care of the tuberculous insane was considered. It is well known

that a considerable proportion of the deaths in our insane asylums is from tuberculosis, and that the conditions under which the inmates are necessarily kept is highly favorable to the spread of the disease. In a number of states great progress has been made in furnishing means for the segregation of such patients and their proper treatment in suitable separate wards, buildings or camps. It appears that so far no such provision has been made in any of the state hospitals in Missouri. At the time of this conference plans were already under way and have since been completed for the erection of a separate building for this purpose, as well as for the care of certain other diseases, at Hospital No. 1 at Fulton. A hospital building to accommodate 100 patients costing \$40,000, is now under way. It is earnestly hoped and confidently believed that this good example will be followed by our other asylums as soon as the funds for that purpose can be secured, and this Association should urge upon the managers of these institutions the crying need for such action. Here, as everywhere else, the great State of Missouri does not realize the imperative necessity for a more liberal appropriation of funds for sanitary and life-saving purposes. Cannot the physicians of the state wake up our legislators to a sense of this obligation?

Your committee has no doubt that during the year there has been other good work done in this line in Missouri at points from which, in spite of considerable inquiry, we have not heard. Nevertheless the fact remains that the medical profession and the people of our state are not as much awake to the necessities and the possibilities of this fight against consumption as they ought to be, or as the profession and the people are in many other states.

What follows is a repetition of the language of the report of last year's committee.

"What this state needs, in order to make a respectable showing among its sister states, is not only the Sanatorium for Incipient Tuberculosis at Mt. Vernon increased to fourfold its present capacity, but municipal sanatoria and hospitals, respectively, for the incipient and advanced cases, for at least the five largest cities of the state, maintained by these cities alone; and not less than four state hospitals for advanced cases, suitably located, for the admission of patients from the various counties of the state, exclusive of the cities above mentioned, on the same general plan on which patients are now admitted at Mt. Vernon. It would be a question for consideration whether the price charged the various counties for the care of their patients should not be a sum sufficient fully to cover the cost of such care.

"New York, Pennsylvania and Massachusetts, each of them, maintain several sanatoria and hospitals for the care of tuberculosis in its various stages, supported by the state, besides others maintained by municipalities. Maryland is well to the front in this work; and even little Rhode Island has a large and well-equipped tuberculosis sanatorium. The larger cities—St. Louis, Kansas City, St. Joseph, Springfield and Sedalia—have an evident and immediate duty in the way of securing and enforcing legislation against spitting, the registration of cases of tuberculosis, the instruction of patients and their families in the means to be used to protect others from infection, the disinfection of habitations after a death from tuberculosis or after a person, a victim of the disease, has vacated such habitation, and the establishment of municipal tuberculosis hospitals and sanatoria. The smaller cities and towns have the same work to perform, with the single exception that in their case it would be impossible to maintain the hospitals and sanatoria above mentioned. For the care of such of their patients as can be sent to a public institution, those state hospitals should be maintained which were spoken of earlier in this report."

In conclusion, your committee recommends:

"First—That the Missouri State Medical Association hereby cordially approves of the work of the State

Sanatorium for Incipient Tuberculosis and would, through its members, urge upon our legislators the generous support of that institution.

"Second—That a committee on tuberculosis, to be appointed for the ensuing year, be instructed to communicate with prominent members of the profession in the leading cities of the state, urging upon them the importance of such antituberculosis regulations and provisions as are recommended in this report and exhorting them, on behalf of the Association, to take active steps toward the securing of such legislation.

"Third—That the aforesaid committee be authorized to draw upon the treasurer of the Association for such funds as may be needed in carrying out these instructions."

All of which is respectfully submitted.

E. W. SCHAUFFLER, Chairman,
GEORGE HOMAN,
C. M. MCCONKEY,
JAMES MCCOMB,
JAMES HANKS,

Committee.

REPORT OF THE COMMITTEE ON CANCER.

As chairman of the Committee on Cancer, which was appointed at my request last year, I beg to submit the following report:

After making thorough inquiry concerning the possibility of collecting statistics as to the occurrence of cancer in this state, from many individuals and from institutions, I have become convinced that the data which could be gathered would not be sufficiently accurate to reach conclusions of value. I need only call attention to the fact that heretofore in this state there existed no vital statistics, and the new law which has gone into effect on the first of February of this year has not, as yet, produced results in the collection of data that would be helpful. I have, therefore, concluded simply to report progress and ask for another year's time during which to lay the foundation for a report which can be presented.

In making this report I call attention to the many difficulties which are associated with the collection of these data and to the experience of other states and countries which, in the question of vital statistics, have been far in advance of us for many years. I hope that valuable data can be presented to you at an early day.

The work in the treatment of cancer, its study in the laboratories and the experimental work which is done in connection with it show an ever increasing interest in this formidable disease; and in our own state, since last we met, there has been established a laboratory for cancer research work, well equipped and well manned, from which the profession and the people, it is hoped, will receive valuable assistance concerning the knowledge and treatment of cancer.

F. J. LUTZ, Chairman.

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THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

AUGUST, 1910

Number 2

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ORIGINAL ARTICLES

SELECTIONS FROM A LANTERN DEMONSTRATION OF NORMAL AND PATHOLOGICAL SPECIMENS OF THE EAR*

LOUIS K. GUGGENHEIM, M.D.

ST. LOUIS

NORMAL

Fig. 1. Transverse section through the cartilaginous portion of the external auditory canal. Inferiorly is the strip of cartilage (1), superiorly the lumen of the canal (2). In the lining mem-

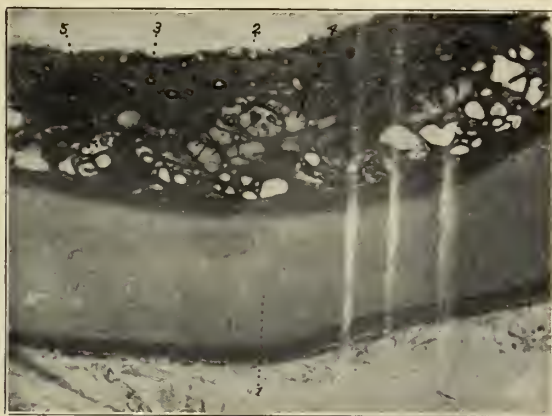


Figure 1

brane are seen numerous hair follicles (3), ceruminous glands (4), and sebaceous glands (5). The ceruminous glands resemble the sweat glands of the negro race. The sebaceous glands, which are racemose in character, show in the picture the typical acini formation.

Fig. 2. Transverse section through the tympanic membrane and handle of the hammer. The handle (1), which is triangular in form, is seen to be completely surrounded by the middle layer

of the drum, the lamina propria (2). Externally is the epidermis or outer layer of the membrana tympani (3). To the median side is the thin mucosa (4). In the lamina propria laterally are seen numerous blood vessels and nerves.

Fig. 3. Frontal section through tympanic membrane and malleus. Superiorly is the head (1) of the hammer, laterally the short process (2), and inferiorly the handle (3). At (4) is that portion of the tympanic membrane, called Shrapnell's membrane, which forms the external boundary of Prussack's space (5).

Fig. 4. Frontal section through the entire organ of hearing showing, externally, the external auditory canal (1), inferiorly, the glenoid fossa (2). At the inner end of the

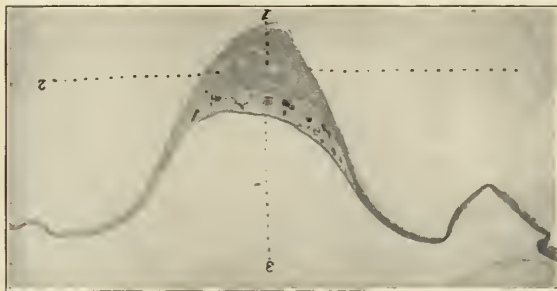


Figure 2

external canal is the drum membrane (3). In the attic or superior portion of the tympanic cavity is seen the articulation between the head of the hammer (4) and the body of the incus (5). On the median wall is the processus cochleariformis (6) from which extends the tendon of the tensor tympani muscle to the neck of the hammer. Just above and to the median side of the processus cochleariformis is the geniculate ganglion of the facial (7). Below this is the cochlea (8). Inferiorly is the internal carotid artery (9). In this picture is beautifully demonstrated how the pneumatic cells may extend over the entire pyramid.

* Given in the Eye, Ear, Nose and Throat Section, Missouri State Medical Association, Hannibal, May, 1910.

Fig. 5. Frontal section through the posterior portion of the same temporal bone from which No. IV was taken. Laterally is the external auditory canal (1). At its inner end is the drum membrane (2). To the median side of the membrana tympani is the middle ear. Above



Figure 3

is the mastoid antrum (3), to the median side of which are seen the horizontal (4) and anterior vertical (5) semicircular canals. Inferior to the horizontal canal is the facial nerve (6) below which is seen, first, the oval window with foot-plate of stapes (7), then the promontory (8).



Figure 4

and then the cellulae tympanici (9). To the median side of the promontory is the beginning of the cochlea (10). At (11) is the internal auditory meatus.

Fig. 6. Transverse section through the hammer-incus articulation. At (1) is the capsule of

the joint. Between the two ossicles is a strip of elastic cartilage (2). At (3) is the head of the hammer, at (4) the body of the incus.

Fig. 7. Transverse section through the cartilaginous portion of the eustachian tube. To the median side and superiorly is the hook-shaped cartilage (1). In the center is the lumen of the tube (2) lined with ciliated columnar epithelium.



Figure 5

Attached to the two ends of the cartilage are the tensor and levator palatini muscles.

Fig. 8. Transverse section through the ampullary end of a semicircular canal. At (1) is the crista acustica with its cupola (2) composed of numerous fine hairs held together by a homogeneous semi-solid mass.

Fig. 9. Membranous labyrinth of the right side. Anteriorly is the cochlea (1), at the begin-



Figure 6

ning of the basal turn of which is the membrana tympani secundaria (2). Posteriorly are the three semicircular canals: above, the anterior vertical (3), in the center, the horizontal (4), below, the posterior vertical (5). At (6) is the utricle. At (7) the sacculus.

PATHOLOGICAL

Fig. 10. Otitis media suppurativa acuta. Transverse section through the middle ear, region of round window. The membrana tympani secundaria (1) is seen to be somewhat swollen. The



Figure 7

little canal leading to the fenestra rotundum is filled with a mass of exudate (2). The entire middle ear, previous to preparation, was filled with a similar exudate. The mucosa (3), which is normally very thin, is here enormously thick-

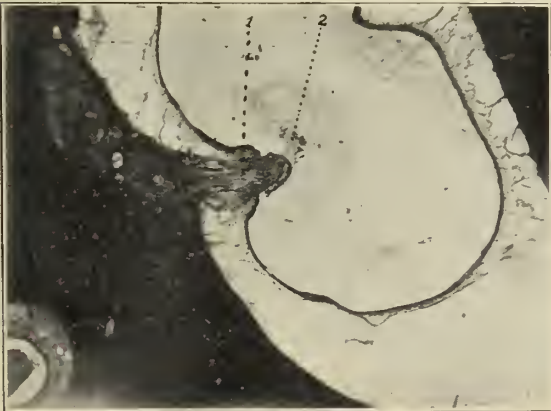


Figure 8

ened. The swelling is due to hyperemia and round cell infiltration. Throughout the mucosa are seen numerous small cysts (4). These cysts, which were first described by Ruttin, have never been satisfactorily explained. At first they were

thought to be due to occlusion of the mucous gland ducts. There being, however, very few mucous glands present in the middle ear mucosa, except near the tubal orifice, this theory has been abandoned. The cysts are found in every case of acute middle ear suppuration. The medullary spaces in the bone near the surface (5) show round cell infiltration and hyperemia. Here and there the epithelium has been destroyed but, on the whole, is fairly well preserved.

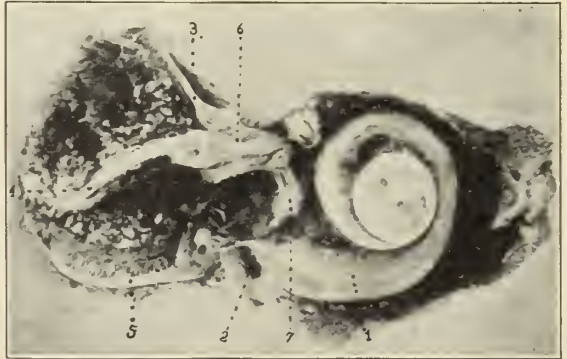


Figure 9

Fig. 11. Otitis media suppurativa chronica. Transverse section through tympanic membrane and hammer handle from a case of chronic suppuration of the middle ear complicated by cholesteatome formation. The drum membrane (1) is seen to be markedly thickened from a new connective tissue formation, enlargement of blood vessels, round cell infiltration, etc. The enlarged

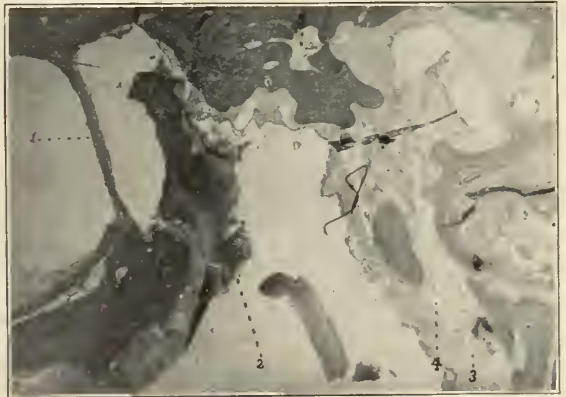


Figure 10

blood vessels are plainly seen in the picture as round, dark areas in the drum tissue. At (2) is the hammer handle, to the side of which is the perforation (3) in the drum. In the middle ear is a mass of cholesteatom (4).

Fig. 12. Congenital osseous atresia of the external auditory canal with chronic suppuration of the middle ear, fistula of the mastoid, diffuse suppurative labyrinthitis, etc. The individual

from whom this interesting specimen was taken died of a diffuse purulent meningitis. The probable history of the case is as follows: The patient at some time or other developed an acute supuration of the middle ear. The pus could not escape in the usual way, that is, through the external canal, on account of the congenital bony atresia. The result was a mastoiditis with per-

inflammation. The portion of the cysterna perilymphatica (6) seen in the picture is filled with connective tissue and pus.

Fig. 13. Section of mastoid process from a case of otitis media suppurativa chronica. The mastoid cells (1), which normally contain air,

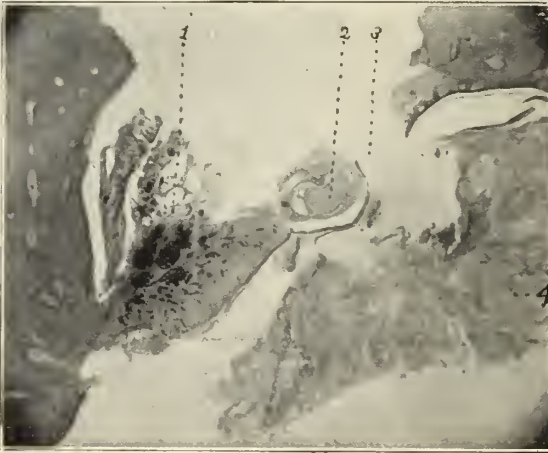


Figure 11

foration of the outer plate of the mastoid process, and formation of the fistula seen in the specimen. The acute suppurative of the middle ear became chronic and, finally, as a result of erosion of the stapedial foot-plate, the infection gained entrance to the cysterna perilymphatica of the labyrinth. A diffuse suppuration of the labyrinth was caused. The patient died from meningitis complicating the purulent labyrinthitis.

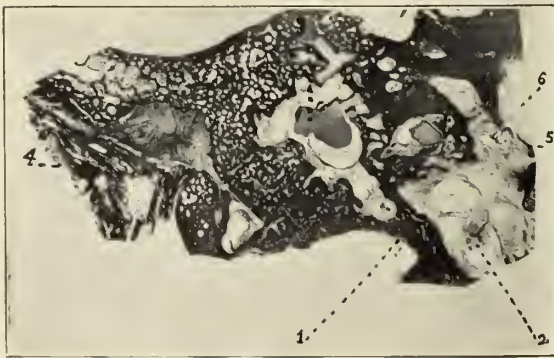


Figure 12

To return to the picture we see at (1) the congenital bony atresia of the external auditory canal. At (2) is the middle ear completely filled with connective tissue, pus, etc. In the center of the specimen is the antrum of the mastoid (3). Posterior to the antrum is the epidermis lining the mastoid fistula (4). At (5) is the foot-plate of the stapes showing quite plainly the break through which infection passed into the labyr-

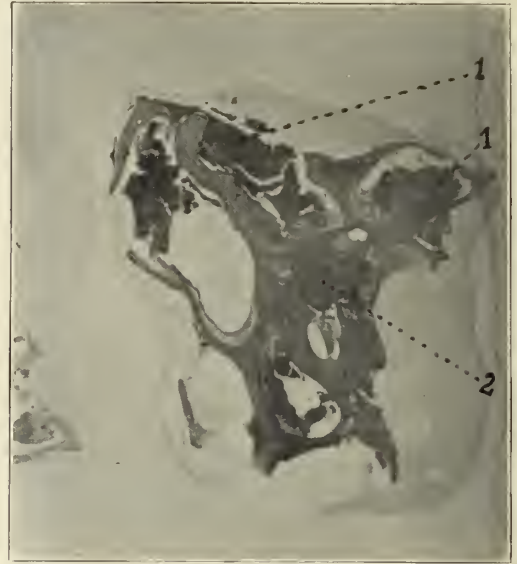


Figure 13

are seen here to be filled with masses of connective tissue and pus. In the center of the picture is a cell (2) in which may be seen the interesting process of new bone formation. The delicate network of dark lines represents the new bone. This specimen explains why we so often find a sclerotic

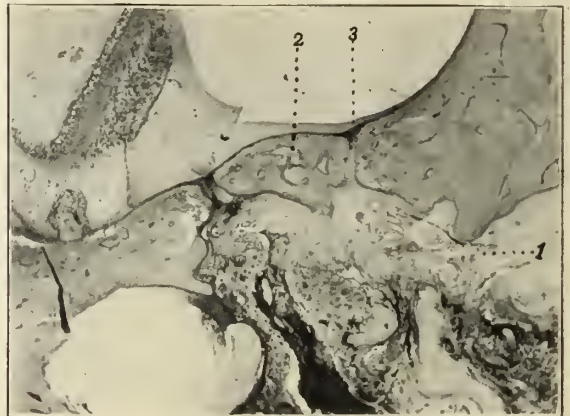


Figure 14

mastoid in chronic suppurations of the middle ear requiring the radical mastoid operation.

Fig. 14. Adhesive process following otitis media suppurativa chronica. As is well known adhesive process of the middle ear may follow catarrhal affections or suppurative processes. In the former the prognosis as to the hearing is.

necessarily unfavorable, for the condition is progressive. In the latter the hearing usually remains the same after the suppuration has once been cured. In this picture we see an adhesive process of the severest type. The entire middle ear (1) is filled with a mass of connective tissue. The crura of the stapes have been destroyed by the suppurative process so that we see here only the foot-plate (2) and a very small portion of the head. The foot-plate is completely ankylosed in the oval window by the connective tissue, although the ligamentum annularis (3) is quite normal. This then is an ankylosis of the stapes from a disease of the mucous membrane and middle ear cavity. The next picture will also demonstrate an ankylosis of the stapes resulting, however, from a disease of the bone instead of mucosa.

Fig. 15. Otosclerosis. Although it is still claimed by some that otosclerosis and adhesive process are one and the same condition, assuredly

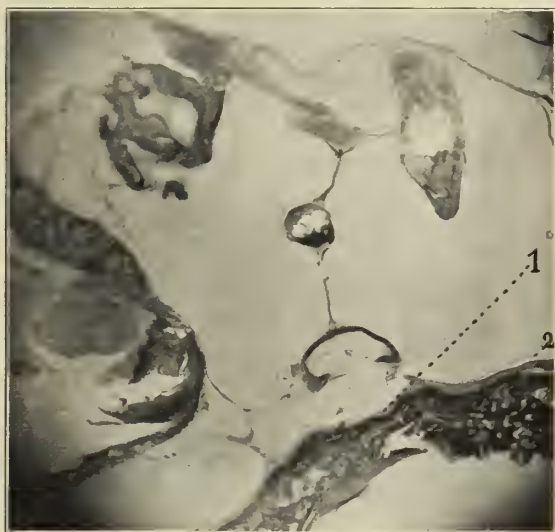


Figure 15

those who make such a statement have never seen either of the conditions under the microscope, for nothing could possibly be more simple than a microscopic differentiation between the two diseases. Adhesive process, as before stated, is primarily a disease of the mucosa but may later involve the surrounding bone; never however, to the same extent or in the same manner as otosclerosis. Otosclerosis is primarily and always a disease of the bone, the mucous membrane remaining normal throughout the course of the disease. The actual change which occurs in otosclerosis is the formation of spongy bone, beginning usually in the region of the oval window or away from the oval window on the promontory. The process results first in an ankylosis of the stapes with progressive impairment of hearing. It may then extend into the pyramid, completely destroying the function of the cochlea, etc. In

the beginning the condition acts as an obstruction to sound conduction: later it becomes a disease of the sound-perceiving apparatus as well.

The picture shows a horizontal section through the middle ear in the region of the oval window. The niche of the oval window is completely filled out by the spongy bone (1). The foot-plate of the stapes is no longer discernible. The enormous medullary spaces and Haversian canals easily differentiate the spongy bone from the normal dense bone of the promontory. It will be noticed that the tympanic cavity is entirely free of any pathological change and that the mucosa (2) is perfectly normal.

Fig. 16. Labyrinthitis serosa. Complicating middle ear suppuration there sometimes occurs a form of labyrinth inflammation called labyrinthitis serosa. In this condition there is no entrance of pus into the inner ear, the irritation being due to toxins either alone or in combination with bacteria. Access is gained to

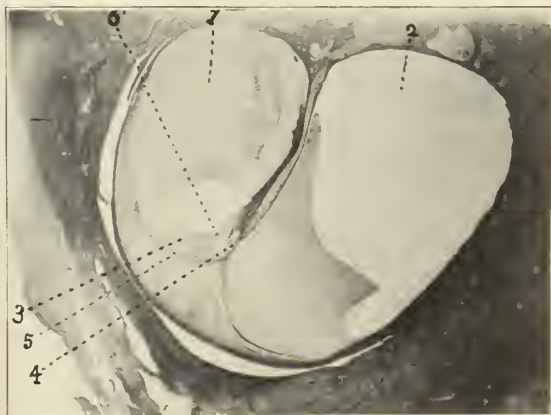


Figure 16

the labyrinth either through lymph and blood vessels, or directly by absorption through the intact membrane of the round window, etc. There results a coagulation of perilymph and endolymph and a serous exudate, which latter must be looked upon as a collateral edema. The symptoms are often identical with those manifested by a purulent labyrinthitis. When, however, the perilymphatic spaces alone are involved hearing may be retained throughout the entire course of the disease, the Weber test remaining to the diseased side. This is explained by the fact that the perilymphatic spaces of the internal ear are really a part of the sound conducting apparatus, a coagulation of perilymph simply meaning an obstruction to sound conduction. When the endolymphatic spaces are involved the hearing is either temporarily or permanently lost, depending upon the extent of injury to the organ of Corti. The fact that hearing may be completely restored after the process has subsided, differ-

entiate the condition from diffuse purulent labyrinthitis which always results in a permanent loss of hearing.

The illustration is a horizontal section through a turn of the cochlea. The scala vestibuli (1) is completely filled with coagulated perilymph. The scala tympani (2) is, in the picture, only partially filled. This is due to the fact that a large part of the coagulated mass was lost during the preparation of the specimen. The ductus cochlearis (3) is also completely filled with coagulated endolymph. The organ of Corti has been destroyed and we see in its place only a mass of cellular debris (4). The stria vascularis (5) shows practically no change. The membrana Reissneri (6) shows, at its attachment to the crista spiralis, a slight collapse. The nerve elements in the spiral ganglion and the canal of Rosenthal show practically no change.

Fig. 17. Beginning acute diffuse suppurative labyrinthitis. This picture is a horizontal section of the cochlea showing all the turns as well

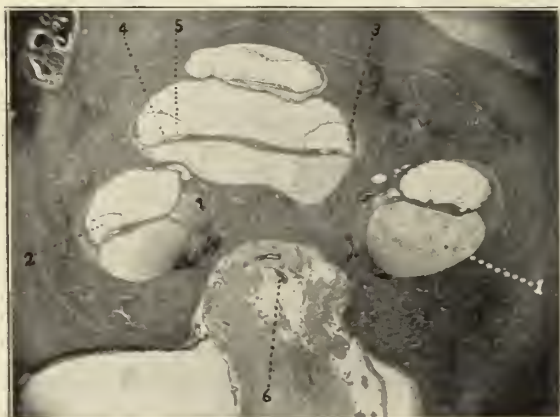


Figure 17

as the nervus cochlearis. In the basal turn is a coagulation of perilymph and an exudate in the scala tympani (1). On the left is an ectasia of the ductus cochlearis (2). In the second and third turns is a slight coagulation of perilymph in both scalæ. Throughout the second turn is an ectasia of the ductus cochlearis, due to an increase in endolymphatic pressure. The membrana Reissneri shows a slight exudate throughout the cochlea. In the ductus cochlearis (3) is also a small amount of exudate. The organ of Corti (4) and the membrana tectoria (5) are still intact but would, of course, have been completely destroyed in the course of the disease if the patient had lived long enough. Hyperemia and perivascular exudation in the nervus cochlearis (6) may be noticed.

Fig. 18. Chronic suppurative labyrinthitis. Horizontal section of one side of the basal turn of the cochlea. Both scalæ are completely filled with newly formed connective tissue and pus.

The ductus cochlearis shows a slight connective tissue formation. In the ligamentum spiralis is a marked round cell infiltration (1). The organ of Corti has been destroyed. The crista spiralis and membrana tectoria are still intact. A slight ectasia of the ductus cochlearis, due to a contraction of connective tissue in the scala vestibuli, may be noticed. The peculiar cyst formation in

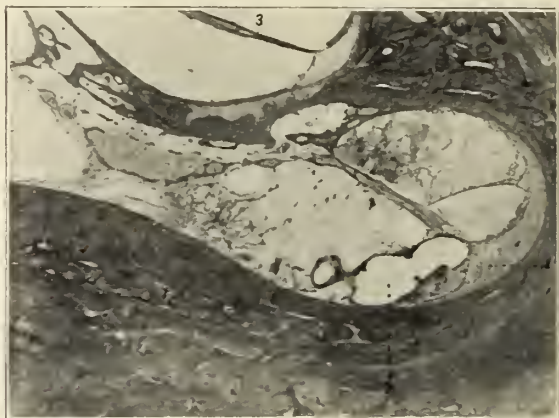


Figure 18

the scala tympani (2) is doubtless also due to a contraction of connective tissue. In the second turn, seen just above the one described, the two scalæ are free of any pathological change, the ductus cochlearis (3) being the sufferer here. Owing to adhesions between the membrana Reissneri and the lamina spiralis membranacea the ductus cochlearis has been obliterated. The surrounding bone (4) is perfectly normal.

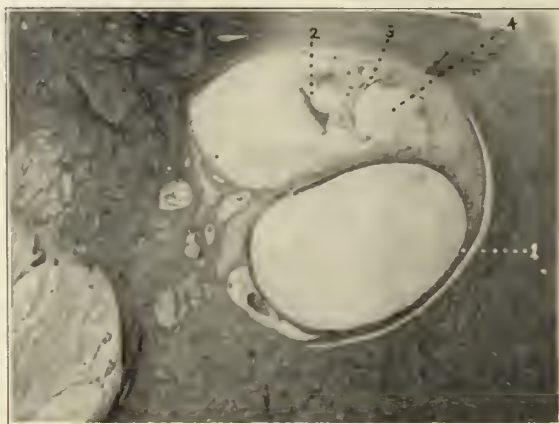


Figure 19

Fig. 19. Tuberculosis of the labyrinth. The picture shows a horizontal section of one turn of the cochlea. The scala tympani (1) is free of any change. In the scala vestibuli is a quantity of pus and connective tissue (2). To this connective tissue is firmly bound the membrana Reissneri (3). Contraction of the connective tissue has resulted in an ectasia of the ductus coch-

learis (4). In the ductus cochlearis is noticed pus and connective tissue in three different positions; at the angle formed by the membrana Reisnerri and the ligamentum spiralis, over the stria vascularis, and resting upon the lamina spiralis membranacea. The organ of Corti has been destroyed. The crista spiralis is still intact. The surrounding bone shows no pathological change.

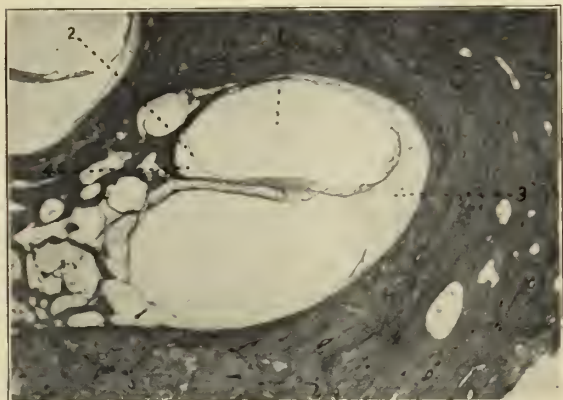


Figure 20

Fig. 20. Ectasia of the ductus cochlearis. This interesting condition may result either from a contraction of connective tissue to which the membrana Reisnerri is attached, or from a disturbance in the equilibrium existing between endolymphatic and perilymphatic pressure. In this picture we have a demonstration of the latter cause. The case was one of healed labyrinthitis serosa in which the endolymphatic pres-

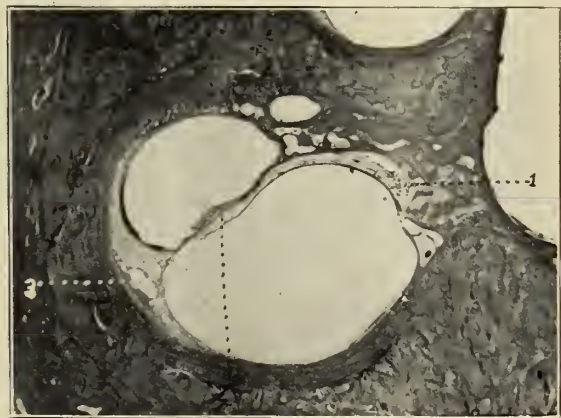


Figure 21

sure, for some reason or other, had been very much greater than the perilymphatic. The section is a horizontal one and shows an enormous ectasia of the ductus cochlearis (1). The membrana Reisnerri (2) instead of extending from the crista spiralis in a straight line to the ligamentum spiralis (3), is seen here to bulge into the scala vestibuli (4) to such an extent as

almost to obliterate that cavity. Otherwise the specimen shows no marked abnormality.

Fig. 21. Nerve deafness-atrophy of Rosenthal's ganglion. Atrophic processes in the labyrinth occur most frequently as a result of old age or from long exposure to loud noises. The spiral ganglion of the cochlea seems always to show the earliest involvement. Later the nerve trunks, maculae acusticae, cristae acusticae, and parts other than the nerve elements become affected. In uncomplicated cases the drum is normal. The hearing shows progressive impairment. There are no vestibular symptoms manifested, as in inflammation of the labyrinth. The upper tone limit is lowered. This is owing to the fact that high tones are heard with the base of the cochlea and this part shows earliest involvement. Later, when the apex also becomes affected, the low tones are no longer heard.

The picture is a horizontal section through the basal turn of the cochlea. Whereas normally the

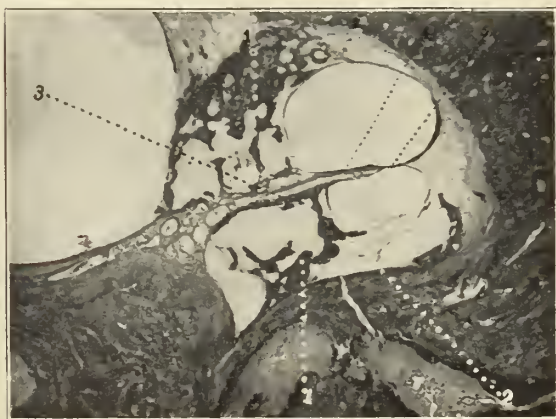


Figure 22

spiral ganglion (1) contains a mass of innumerable ganglion cells, there are so few present here that they may very easily be counted. In Rosenthal's canal (2) are only a few scattered nerve fibers. The ligamentum spiralis (3) shows in its center a large atrophic area.

Fig. 22. Deaf-mutism. Deaf-mutism may be congenital or acquired. In the latter case it is due to disease affecting the ears soon after birth. The congenital form may be due to disease of the ear occurring intrauterine, but is usually hereditary or a result of consanguineous marriages. Acquired deaf-mutism is due to primary disease of the ear, intracranial processes, or to systemic disease. One of the most frequent causes is meningitis. Among the conditions which have been found in the congenital form may be mentioned bilateral atresia of the external canal, imperfect development of the middle ear, defects in the two windows, including bilateral bony closure of the round window and ankylosis of the stapes, atrophy of the nervus cochlearis, abnor-

malities of the otolith membrane and the ductus cochlearis, ectasia of the membranous labyrinth, etc. Pathological conditions found in the acquired form are, atresia of the external canals, purulent otitis media in early childhood, caries and necrosis of the labyrinth, inflammation of the labyrinth, etc.

The picture is a horizontal section through the cochlea from a case of congenital deaf-mutism. There are so many abnormalities present that we hardly recognize the picture as one of a cochlea. The two scalæ are filled with bone (1) and connective tissue (2). The membrana Reissneri is bulged outward into the scala vestibuli. There is present no sign of a spiral ganglion. The canal of Rosenthal (3) is empty. There is no organ of Corti, no membrana tectoria, and no crista spiralis.

Metropolitan Building.

WHAT IS THE BEST TREATMENT FOR ACUTE SPREADING PERITONITIS?*

H. S. CROSSEN, M.D.

ST. LOUIS

I bring the subject before you in the form of a question in order to excite discussion. Acute spreading peritonitis from various causes is one of the most serious diseases with which we have to deal. The treatment of this condition has, as you all know, undergone a radical change in the last few years, and with remarkable reduction in the mortality. Formerly 80 to 90 per cent. of these patients were lost. Now 80 to 90 per cent. are saved. These splendid results have been obtained, not by any single measure but by combination of several measures, the relative importance of each of which is variously estimated by different workers. What particular combination of measures promises the best results? What are the essential details to be observed in carrying out the individual measures? In short, what should the physician do, in view of recent advances, when confronted with a case of acute, virulent peritonitis?

The remarkable results above mentioned have been obtained by a more intelligent aiding of Nature. Consequently, in order to work out the essential features of handling these cases, it is necessary to inquire into Nature's efforts at caring for them.

The process is best studied where a quantity of infective material is liberated suddenly in the peritoneal cavity, the best examples of which are seen in perforations of the intestinal tract. The most common of these is perforation of the appendix. Hence, the great advance in the treatment of peritonitis of virulent type has been made largely from the study and treatment of

cases of perforative appendicitis. In this study it has been established that, in Nature's attempt to protect the system from the infective material, there are three important factors, as follows: (a) A wall of exudate which surrounds the infective material, binding together the adjacent surfaces, and opposing an organic barrier to the spread of the infection. (b) Immobilization of the intestinal coils, which prevents mechanical spread of the infectious material, such as would necessarily take place in the presence of normal intestinal peristalsis. This immobilization of the intestinal coils is favored in part, mechanically by the adhesions forming the wall of limiting exudate, and in part physiologically by the anorexia, which causes very little food to be taken, and by the vomiting, which rejects a large part of that which is taken. (c) Elimination—first of the toxins through the kidneys—and other eliminative organs, and, second, of the infectious material itself through an opening to the external surface of the body, or into some hollow organ.

Such in brief is Nature's method of handling these cases. The results vary with the virulence of the infection, the vital resistance of the individual, and the efficiency of the outside help. These are desperate cases. With or without outside help, the patient's life hangs in the balance, and every move that is made should be made with the idea of aiding Nature and not handicapping her. Such intelligent assistance can be given only by a well-balanced consideration of each of the three factors above mentioned. One or another of these factors has at various times been given undue prominence in the treatment. The old opium treatment considered the immobilization and the exudate with practically entire neglect of elimination, either general or local. The latter treatment by operation and widespread irrigation and mopping of peritoneal surfaces and extensive drainage, was based upon an exaggerated idea of the importance of elimination, and upon an erroneous idea as to how best to attain the really necessary elimination. This method, which was practiced generally a few years ago, took almost no account of any factor save drainage.

In the present method of treating acute spreading peritonitis, the wall of exudate is preserved as far as possible by employing simple drainage, without irrigation or extensive exploration or any other manipulation except that necessary to give exit to the infected material and perhaps remove a sloughing structure or close an opening in the intestinal tract. The immobilization of the adjacent intestinal coils is favored by leaving the adhesions and by quieting intestinal peristalsis through withholding all food for a few days and through stomach-washings. Elimination is secured through simple drainage of the infected site and, when needed, of the pelvic peritoneal pouch, aided by the half-sitting posture (Fowler

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

posture) and the free use of normal saline solution, particularly by slow continuous rectal absorption (proctoclysis).

This combination treatment has reduced the mortality of acute general peritonitis from 80 or 90 per cent. to 10 per cent., and even lower. This remarkable result is well established and unquestioned. However, there is considerable difference of opinion as to the relative importance of different factors in the treatment. Dr. J. B. Murphy was the first to arrest the attention of the profession generally and focus it upon this subject, by the report in 1905 of a series of twenty-nine cases of acute general peritonitis with twenty-eight recoveries. Murphy laid stress on three factors, viz., simple drainage (without irrigation or other extensive intraperitoneal disturbance), the Fowler posture, and proctoclysis. A late report of his experience gives fifty-eight cases with fifty-six recoveries. Other operators have secured nearly as good results by this treatment, so that it is now very generally employed, with the saving of many patients. Dr. A. J. Ochsner has rendered valuable service by emphasizing the necessity of intestinal immobilization by withholding all food and washing out the stomach. This is important both before operation and after operation until the process is well localized. Ochsner laid special emphasis on its use before operation and, in certain carefully selected cases, instead of operation during the acute stage. This last recommendation (using it to the exclusion of operation in certain desperate cases) is a questionable one at present. When this treatment was first proposed as a substitute for immediate operation in the carefully selected cases belonging to that fatal class generally recognized as "too late for early operation and too early for late operation," it undoubtedly saved many patients, for it was opposed to the extensive operation and general irrigation then in use, which gave a mortality of 80 to 90 per cent. By absolute rest of the stomach and upper bowel, secured by painstaking attention to detail, Ochsner was able to tide the patients over the critical period and operate later with a reduction of the mortality to one-fourth what it was formerly, i. e., to the neighborhood of 20 per cent. With the substitution of simple drainage, however, for extensive operation in these cases, the serious objections to operation (shock and mechanical spread of the infection) have practically disappeared, even in the most desperate cases. When the patient is so weak that general anesthesia is not advisable, the simple drainage may be made under local anesthesia and the exit of infected material through this vent may turn the tide of battle to the saving of the patient. That this is true is shown conclusively. I think, by the fact that Murphy, employing drainage associated with other less important features, was able to save fifty-six out of a series of fifty-

eight cases—a reduction of the mortality to less than 4 per cent.

Associated with drainage, stomach and intestinal rest is an important feature, both before and after operation. In fact, some insist that the splendid results which attend the "Murphy treatment" are due, aside from drainage, almost entirely to the stomach and intestinal rest so strongly emphasized by Ochsner. In a recent article, G. S. Brown, in support of this contention, reports a series of seventeen cases of diffuse peritonitis with fourteen recoveries, in which the treatment employed was drainage by operation combined with antiperistaltic regime of Ochsner "without the use of the Murphy-Fowler features." It is difficult to decide certainly as to the relative importance of each of the factors which enter into the present successful treatment of extensive peritonitis. There are several reasons for this. There are certain essential technical details about some of the factors that are not always fully comprehended and carried out, hence confidence may be lost in one or another feature of the treatment simply through the inefficiency of the one who employs it. Again, physicians differ much as to the cases they classify under "acute diffuse peritonitis," thus causing a marked difference in the mortality records. Still again, the combination method generally employed, while contributing to splendid results, contributes also to uncertainty as to the relative importance of the various features. I mention this uncertainty, not to discourage the use of the combination treatment, but simply to call attention to the fact that there is probably good in each of the features and that it is not wise to make positive statements as to the exclusive sufficiency of this or that feature until we have acquired more definite knowledge through further experience.

The combination treatment for acute spreading peritonitis which to me seems best, is, in detail, as follows:

1. *Withhold all food and cathartics by mouth and empty the stomach with a stomach-tube.* As soon as an acute spreading peritonitis is recognized, arrangements should at once be made for a drainage operation. The sooner the infecting material is given an external exit, the better will be the patient's chance for recovery. While preparing for the operation, however, and also subsequent to operation, this antiperistaltic treatment is indicated. There are certain details that must be carried out to the letter to secure the best results. No food of any kind is to be given by mouth, not even a teaspoonful of liquid nourishment. Whatever nourishment is necessary should be given per rectum. To ensure complete emptying of the stomach, the stomach-tube should be used in every case, except where there is some special contraindication to its use (ulcer of stomach, carcinoma, child too young, etc.).

This gastric lavage makes the patient more comfortable. It gives the stomach rest from irritating material, diminishes the peristalsis and stops the vomiting, which in itself does harm by disturbing the limiting adhesions. The one stomach-washing may be all that is needed. If the vomiting recurs, however, lavage is again indicated, for it means, usually, that reverse peristalsis has brought material from the upper intestine into the stomach, which should be removed by the tube as was the first. In Nature's method of localizing the infection, inhibition of peristalsis in adjacent intestinal coils (temporary intestinal paralysis) is an important factor. If there is food in the upper intestine it excites peristalsis. Now this normal peristalsis and onward progress being interfered with by the immobilization of certain intestinal coils, there is reverse peristalsis, which carries the irritating material back into the stomach where it is partially thrown off by vomiting. The continued administration of food and especially of cathartics, aggravates the reverse peristalsis, adding much to the patient's danger and discomfort. Two or three stomach washings, at intervals of several hours, may be necessary before complete rest of the stomach and bowel is secured.

2. *Drainage of the infected areas with the least possible intraperitoneal disturbance.* This should be carried out as soon as satisfactory arrangements for its safe performance can be made. There should be no irrigation and no breaking of adhesions beyond that absolutely necessary to drain the pus pocket or pockets and, in certain exceptional cases, to remove sloughing tissue or close a hole in the intestinal wall. The anesthesia should be of the shortest possible duration, in order to diminish the further burden on the already overburdened eliminative organs. In some cases the drainage operation can be carried out largely or wholly under local anesthesia, aided by a dose of morphin given about half an hour before. As a rule, tube-drainage in some form should be employed, with or without gauze as preferred. If the pelvic peritoneal cul-de-sac is to be drained through an abdominal incision, the glass tube is best. In other situations, rubber tubing is preferable. If the drainage is made per vaginam, the drainage-tube should have a cross-piece to prevent it slipping out, for, in this situation, it must remain a long time.

3. *The Fowler posture.*—Immediately following the drainage operation, the head of the bed should be raised two feet. This causes all fluid in the peritoneal cavity to gravitate to the pelvis, where it escapes through the drainage tube. As soon as the patient is strong enough, that is, within a day or two, this drainage may be more comfortably and efficiently maintained by the regular Fowler posture (half sitting posture). This posture is useful also before operation.

4. *Proctoclysis.*—The introduction of normal saline solution into the system gives important aid to the heart and kidneys and facilitates the elimination of septic material. If the patient is very weak immediately after the drainage operation, one or two pints of the solution may be given subcutaneously. At the same time the giving of the solution by the rectum should be begun and continued for several days. It is best given by slow, continuous absorption. To secure this, certain essentials must be observed, as follows: (a) the fluid must be maintained at a temperature of about 100 degrees F.; (b) it must flow into the rectum slowly, drop by drop (about one and a half pints per hour), and there must be no obstruction or constriction in the tube that would interfere with the free regurgitation of fluid or gas from the rectum. The apparatus, whether simple or elaborate, must conform to these essentials. The success of the method depends upon accuracy in its application. The following description is that given by J. B. Murphy, who developed the method to its present perfection:

As soon as the patient is returned to bed after operation, proctoclysis is instituted and maintained until the serious symptoms of intoxication cease. The continuous method is by far the most scientific and successful. Moderate distension is the normal condition of the large intestine. If it is hyperdistended it causes spasm and expulsion of material. The mucosa of the large intestine absorbs water with great rapidity. The retention of fluid in the colon depends entirely upon the method of its administration. We have visited hospitals numbers of times and have been shown patients who were receiving the "Murphy treatment." We should not have recognized it without the label. It is difficult to impress those administering it, with the importance of details, notwithstanding that the best results are secured only by close attention to detail. A fountain syringe, to which is attached a three-eighths-inch rubber hose, fitted with a hard rubber or glass vaginal douche tip with multiple openings, was the medium originally used. The tube should be flexed almost to right angles three inches from its tip. A straight tube must not be used, as the tip produces pressure on the posterior wall of the rectum when the patient is in the Fowler position. The tube is inserted into the rectum to the flexion angle and secured in place by adhesive strips binding it to the side of the thigh so that it can not come out, the rubber tubing is placed under the bedding to the head or foot of the bed to which the fountain is attached. It should be suspended from six to fourteen inches above the level of the buttocks and raised or lowered to just overbalance hydrostatically the intra-abdominal pressure, *i. e.*, it must be just high enough to require from forty to sixty minutes for one and one-half pints to flow in, the usual quantity given every two hours. The flow must be controlled by gravity and not by forceps or other obstruction of the tube, so that when the patient endeavors to void flatus or strain, the fluid can rapidly flow back into the can, otherwise it will be discharged in the bed. It is this case of flow to and from the bowel that insures against over-distension and expulsion onto the linen.

The fountain had better be a glass or graded can, so that the flow can be estimated. The temperature of the water in the fountain can be maintained at 100° by casement in hot-water bags. The fountain is refilled every two hours with one and one-half or two

pints of solution. The tube should not be removed from the rectum for two or three days except for bowel movement. When the nurse complains that the solution is not being retained it is certain it is not being properly given; even children tolerate proctoclysis surprisingly well. We have administered as much as thirty pints of salt solution in twenty-four hours and it was all retained. We believe that next to the conservative technic of the operative procedure, proctoclysis is second in importance as a life-saver. It rapidly restores blood pressure, it improves the capillary circulation, it quiets the thirst, it eliminates the septic products and increases the excretions. All of the details are simple, but they must be carried out with precision to secure the best results.

It is not necessary to have an elaborate apparatus. As mentioned above, Dr. Murphy accomplished a large part of his splendid results by a simple fountain syringe properly arranged. The treatment can be more conveniently and accurately carried out, however, with an apparatus especially adapted to the work, and Dr. Murphy uses such an apparatus in his clinic at present.

5. *Nourishment per rectum.*—Give an ounce of some one of the reliable predigested foods to three ounces of normal saline solution every four hours. This may be given by the drop method, just as a like amount of normal saline solution: or it may be given as an ordinary low enema, if it is desired to remove the tube for a time. No large enema is to be used during the acute stage, as it might excite intestinal peristalsis. After the process is well localized and the threatening symptoms have disappeared, stomach feeding may be gradually resumed.

I would like to hear how other members of the section feel in regard to the various details mentioned in the treatment of this disease. Discussion of the subject in state societies and elsewhere will do much to eliminate non-essentials and to crystallize the essentials into a standard plan of treatment, with details clearly defined. When such a standard plan, embodying the essentials, is worked out and generally adopted throughout the profession it will mean the prompt application of effective treatment in every case, with the saving of many patients that are now lost.

310 Metropolitan Building.

DISCUSSION.

DR. C. LESTER HALL, Kansas City: I want to discuss one feature; that is in regard to the subject of drainage. I am satisfied, in the first place, that we have as a rule employed too much drainage. Several years ago I became disgusted with gauze drainage that simply filled up space, resulting in adhesions of gauze to all raw surfaces, requiring weeks to remove it. I immediately applied for something in the way of a drainage tube made of soft rubber, and through that I inserted gauze in the ordinary way so there would be no gauze in contact with raw surfaces; no gauze was exposed except at the end of the tube. I have practically abandoned the gauze in the tube, because gauze inside of the tube becomes so soiled and offensive as to make it disgusting to the patient and the surgeon. This tube is made like an umbrella cover, about two

feet long, and can be cut in any length. I have simply used the drainage tube without gauze and I find the drainage just as good.

DR. F. G. NIFONG, Columbia: The importance of the paper is quite as great to the general practitioner and medical man as to the surgeon, because the surgeon does not see cases of acute spreading peritonitis in the beginning. The initial treatment is given by the medical man and he should know better than many of them do how to start it. Often we see drastic measures adopted in a case that should have just the reverse treatment. We should follow nature's method and attempt to assist nature in the performance of her labors. The first method of starvation is simply assisting nature. If we may add something to that in the way of a splint to the intestines let us have it, or if we may go further and assist nature by making a point of least resistance, by simply opening and putting in drainage at a selected point, let us have that. Nutrition is not so important in the early stages. The washing of the stomach is assistance to nature's method. All are important and the value of these things we will have to determine for ourselves. The most value, I think, is in assisting nature and looking after what elimination is necessary. Go still further and make immediate drainage, and in the least offensive manner. The most important thing for us to learn—not the surgeon alone, but the general practitioner as well—is not to work against nature in the expulsion of the trouble.

DR. FRANCIS REDER, St. Louis: I do not think that surgical diagnosis has advanced to the point where the surgeon can say, "Now is the time for operation." Certain conditions in the abdominal cavity, favorable to the economy, may exist when operative measures may do more harm than good. The surgeon must be guided by his judgment gleaned from not too narrow an experience in dealing with such cases. He must be able to appreciate the best out of the vast amount of work accomplished at the great surgical centers, and must not feel discouraged because he was unable to relieve his patient of the air-hunger, a sign that presages an exceedingly grave condition and usually terminates in death.

DR. H. C. DALTON, St. Louis: I wish to speak of one point which was not brought out. If I recall correctly, Ochsner used his treatment only in cases which he stated were "too late for an early operation and too early for a late operation." Total abstinence from food, stomach lavage and rectal feeding were the sheet anchors in the treatment.

THE RECOGNITION OF LUNG TUBERCULOSIS.*

O. H. BROWN, M.D.

ST. LOUIS

I offer you no apology for attempting to present to you a few facts on the recognition of lung tuberculosis; and as I do not intend to present a text-book article, I will take but little time. I purpose to call attention to one or two points not commonly used, and to endeavor to stimulate interest in making thorough physical examinations of the chest of every individual that comes into the office for consultation. The wide prevalence of tuberculosis, the importance of its early recognition, the vast number of cases that are not recognized until the disease is well developed—these are my reasons for this effort.

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

I need not use argument to support the premise that tuberculosis is prevalent. Everyone of us is familiar with the statement that it is responsible for more deaths than all the other infectious diseases combined, and also with the further fact that from 60 to 95 per cent. of all people have tuberculosis some time or another from the cradle to the grave. In view of these two facts we must conclude that it is only a small per cent. of the total number of tuberculous cases that actually develop to the fatal stage. There must then be a great many cases that just fail in becoming fatal cases, but who are, nevertheless, caused great inconvenience and suffering, and these should be recognized. All that is necessary is that it be looked for by the ordinary methods of physical examination and it will be found very, very frequently.

We are all cognizant of the statement that the early recognition of tuberculosis is important, because of the fact that the earlier the proper treatment is instituted, the more likely is any particular case to recover.

I need but reiterate the statement that is ringing in the ears of all of us that 200,000 people die annually in the United States from this one dread monster—tuberculosis—to prove to you that about that number of cases of early tuberculosis are each year being overlooked, or not recognized until the disease has become well defined.

This is a day of laboratory triumphs, and the art of physical examination and the conclusions therefrom are apt to be under-estimated, or wholly neglected. The finding of the bacilli in the sputum is diagnostic, but if they are not found, no conclusions can be drawn therefrom. There are cases that will tax both the usual laboratory and clinical methods, and in these the tuberculin test may be used. But usually it is not needed, and as it may be potent with harm, it should be omitted unless needed. The x-rays as shown by Knochknecht, Carman and others, may be of great aid.

The two points of my theme that I wish to bring out emphatically are, the getting of a good history and the making of a thorough examination. Nearly all cases can be diagnosticated by this method. These come only by practice—much practice. Most of us fail to realize the degree of perfection that can be reached by constant concentration in one direction. For instance, observe the difference between the amateur and the professional in games of sport. The degree of perfection the latter obtains is often truly wonderful. By inspection alone, if practised for all there is in it, a remarkable amount of information can be obtained.

In the February issue (1908) of the *St. Louis Medical Review*, there appeared an article, by Mark I. Knapp, of New York City. The article is entitled, "How to See All the Organs of the

Body With the Naked Eyes," and illustrates what a man who has trained himself in the art of inspection can see. I read the article shortly after its appearance and began to train myself for keener inspection, and I have been surprised to find how accurately one can outline the positions of the grosser organs by looking at the body. I have instructed several physicians in the use of their eyes on the body but have only found one man who had read the original article: this was Dr. Graves, of St. Louis, and he says he has profited greatly by the article. I have several times referred to the value of keen inspection in outlining diseased lung areas, without giving credit to Dr. Knapp for being the first to call attention to the revelations that come from trained, concentrated scrutiny. I hereby do the double duty of calling attention to this most worthy, scientific, clinical observation of Dr. Knapp, and tender him credit for having given me a true inspiration on inspection. A diseased area of the lung will practically always produce sufficient change of the chest wall to be seen. Strip the patient to the waist, stand squarely in front of him or behind him, in a good light, and compare the two sides of the chest, keeping in mind the influence of unequal muscle development. Do this with every case, support your observation with percussion and auscultation, looking particularly for bronchophony, and you will soon be impressed with the value of careful inspection of the chest. Often restricted motion of the diseased side will be found. Another rather new point that is of great help has to do with palpation. Pottenger and others have called attention to the fact that over diseased areas of lungs there is muscle rigidity that can be distinctly felt with the tips of the fingers. I have found this to be of great help. It has seemed to me, however, that the difference noted was not alone due to muscle rigidity, but that likely a lack of subcutaneous adipose tissue in these areas played a part.

I wish here to mention incidentally an observation which I am sure is not entirely new but which I have never seen recorded. Dr. William Engelbach has made the same observation. I refer to a murmur heard during inspiration. The murmur resembles a low-toned heart murmur and, indeed, I have known it to be attributed to the heart valves. It is synchronous with the heart's rhythm. My explanation of this murmur is that it is due to a lessened elasticity of the alveolar tissue, so that the resistance of the atmospheric air in the trachea and bronchi is less than the alveolar tension. The pulsation of the heart causes then a temporary inhibition to the entrance of the air into the lung and hence an apparent murmur.

In conclusion I would reiterate, that every patient that consults a physician for advice should be given a thorough physical examination and

should be questioned as to all symptoms; the findings of the examination and history should be recorded in detail. This makes a good impression on the patient and guards the physician against overlooking conditions that he should recognize; and holding in mind the fact that every seventh death is due to tuberculosis, the physician will soon diagnose the early cases of tuberculosis that are now being called malaria, typhoid fever, typhomalaria, bronchitis, etc. It is certainly a greater crime to fail to diagnose tuberculosis than it is to do the reverse. I repeat, that 200,000 people die annually in the United States from tuberculosis and there are then about that number of incipient cases unrecognized each year. The physicians need to do more careful work than has been the custom. I dare say that of all cases of lung tuberculosis which show evidence of active processes, between 95 and 100 per cent. of them can be recognized by the simple methods of physical examination which may be found in any text on diagnosis. When possible, your conclusions should be supported by laboratory tests.

CLINICAL DEDUCTIONS IN THE STUDY OF TUBERCULOSIS.*

WILLIAM PORTER, M.D.
ST. LOUIS

The last decade has brought a wonderful change in the practical activities opposed to disease. No longer do we have the complex prescriptions with many ingredients and time worn dosage, and the classification of the case with but a superficial examination and the addition of artificial conditions to the tangle of perturbed natural functions. Not that I would decry the teachings of the fathers or the practice of those from whom we have much of our best inspiration, but the struggling light which they helped to furnish, the delvers in science have discovered electric currents of new beauty and accuracy connecting cause and effect as never before. So it is that the physician of to-day has become the sanitarian, the hygienist, the bacteriologist and diagnostician. The interrogation "why" precedes and often precludes the prescription.

In no department of our work has there been more advance along the line of positive diagnosis and definite therapeutic aid than in the early recognition and care of tuberculosis. The object of this writing is to present a few suggestions which I have found of value in diagnosis, and some deductions that have helped me in the care of the patient. It will not be expected that time be given here to the enumerating of all that pertains to examination and care, but rather to the insistence of some points that have not as yet

been fully recognized. It is the early recognition of tuberculosis that is most important. In the two and one-half years of average duration, a diagnosis during the first three months is many times more important than at any subsequent time.

Early Symptoms.—Without waiting to discuss the proposition, let us say that it is probable that tuberculosis is primarily a lymphatic process and the lungs are the organs most exposed where the bacilli pass from the lymph into the blood. Flick says (International Congress, 1908), "the apices of the lungs along their posterior pleural border probably are the primary seat of lung tuberculosis. The first growth is small and does not usually attract attention." Even before the physical signs can be determined there may be much suggestive in the general condition. Deviation from the normal in weight and strength and color, slight afternoon rise in temperature, a fickle appetite and quickened pulse, demand at once the most careful physical examination, an examination which may require the most consummate skill and judgment to be conclusive, or may fail in exactness till time has thrown the limelight of earnest research more directly upon the clinical picture.

In all examinations we should have a regular method of procedure, and I know of none better than the old subdivisions found in our text-books, adding to each the modifications of latest research. It is of these modifications or additions that I would here speak briefly.

Inspection.—The sight reading of the human chest may attain wonderful exactness. Remembering always the value of symmetry, the least deviation from the normal in movement, shape or color, should be noticed. Too much emphasis cannot be placed upon retardation of movement at any given place. The careful diagnostician must study the chest surface as the explorer studies his topographical chart. The diminution of the movement of the diaphragm as indicated by Litton's Shadow, often indicates pleural hypersensitiveness due to infection of a lobule near the surface of the lung.

Palpation.—To the trained touch much evidence may be gained as suggested by recent studies in muscle rigidity. When the active pathological processes are found in the lung, there are certain definite signs. Some of these I wish to cite. One of the earliest signs of localized disease in the lung is muscle tension of the corresponding side. I am not sure but that this phenomenon is found in active pulmonary disease other than tuberculosis, but certain it is that it is well worth study. We have long known that muscle tension has value in acute abdominal inflammations and in some reflexes of the extremities. It is surprising how delicate is the response in many cases. Since Dr. Pottenger first called

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

my attention to this sign I have found it in the majority of all incipient cases. Recently, at the State Sanatorium, I examined a number of patients whose clinical history I did not know. With my eyes closed, that I might not be influenced except by touch, I was astonished to see how accurate the evidence was, not in the advanced cases so much, but in the early cases where the pathology is in its beginning and the ordinary interrogations are inadequate. To estimate and locate this tension the finger tips should be placed lightly on either side. The upper third of the anterior chest wall gives the best result and it is necessary that the touch should be over the intercostal spaces. So far as I have been able to tell, the site of tension corresponds with the affected areas underneath, and this phenomenon may be found in other cases than those of tuberculous infection. Recently I found it well marked in a case of acute myocarditis. There are two divisions of this most interesting subject, (a) marked rigidity due probably to reflex stimulation; (b) those of more chronic type where the reflex is wanting. In these cases this sign depends upon our ability to note the difference between tissues of different density, even when lying within the hollow cavities of the body by extremely delicate palpation.

Mensuration.—The ordinary method by the tape line is of little value. If large calipers are used and the antero-posterior measurement taken at corresponding points, a very slight difference in diameter and movement can easily be noted.

Percussion.—Like palpation percussion is valuable not so much because of the sound elicited as on account of the impression received by the trained touch. The direct stroke, as shown by Goldscheider and reviewed by Taussig (*Interstate Medical Journal*, p. 843, 1910), gives us a large field for exploration and brings back this method of interrogation to a most valuable place. The percussion of the electric vibrator through the consolidated tissues as shown by touch and stethoscope, is a sign to which I would call special attention but which I cannot here discuss. Often the vibration or even gentle percussion over a sensitive area will produce cough (tapage).

Auscultation.—If sight and touch are so important, how much more is that method by which we note the change and new sounds of the earliest pathological process? When the bacillus invades the lining of a bronchiole the irritation dependent upon the colonization results in small points of inflammation, or tubercles, in the lumen of the tubule. These rough points interfere with the passage of air in and out of the bronchiole and produce a slight change in the respiratory note, hard to hear in many cases, localized and often not to be recognized except by comparison with the other side. This sound must not be confounded with the increased pitch in the

fine bronchial murmur, so often heard in bronchitis. The other evidence at this early stage may be very indefinite. Often there is only a slight rise in temperature and sometimes an irritating, dry, cough. When the early invasion is in the vesicle there is swelling and loss of function. The elasticity of the intravascular wall is impaired and we have what used to be thought the earliest sign, i. e., prolonged expiratory murmur. With this and the bronchial roughness and a slight fever and cough, the patient should be given the benefit of the doubt and carefully watched. Bacilli are not found in this stage, as a rule. In the more advanced stages the evidence is generally so marked that there is little danger of error. Crepitation, dullness, bronchophony, conveyed whisper and amphoric notes are not likely to be misunderstood.

Importance of Posterior Lesion.—Diminution of the percussion note, with harsh breathing, and crepitation heard in the upper interscapular region, is suggestive of lymphatic infection and infiltration of the bronchial glands. The cases we have noted of this class run a much more rapid course than those in which the infection has been through the respiratory tract. It is true that the premise is hard to prove, but the fact remains that the cases most difficult to control have been those in which the physical evidence was most marked in the upper dorsal region. I would again urge that no chest examination is complete without most careful investigation of this locality.

Specific tests.—If there is need for a positive decision at once, the tuberculin test may be made. Several of the recent methods are harmless but by no means infallible. I am using a modification of the Morro and v. Pirquet tests. Scarification is followed by the application of old tuberculin ointment and the test point and the control are covered with colodion. As a rule, however, I believe that time is the best test and if the patient is under observation, he is taking no risk. The v. Pirquet test seems the more reliable, but even its true value seems to be best shown in children. In the adult I have sometimes found reaction where there has been no history or suggestion of tuberculosis. In these, there may have been a latent condition, undiscoverable otherwise. It is curious that in undoubted and rapidly progressing cases there may be negative results.

The channels of invasion are worthy to be considered in their relation to diagnosis. At present the respiratory tract is by many considered the main channel, but with a larger opportunity for investigation than formerly, I am convinced that many more pulmonary cases are directly infected through the lymphatic and blood channels than are recognized by the average physician. The phenomena of invasion by the bronchial route have been studied not only clinically

but in their pathological sequence, and to such an extent has this study served that it has, until recently, overshadowed the other important questions of infections along the lymphatic channels, or around the arterioles and capillaries by the blood current. I would emphasize the value of infection through the lymph channels as a factor in the etiology of tuberculosis. Roemer and Behring have shown that albuminous bodies may pass through the walls of the alimentary canal and into the blood and lymph, unchanged in new born animals. Ribbart believes that most cases of pulmonary tuberculosis are hematogenous. George Wood (55th A. M. A.) found by animal experimentation that the tonsillar tissue is more liable to tuberculous infection than any other part of the upper respiratory tract and this in part explains the frequency of tuberculosis of the cervical lymphatics.

May I add a few points which seem to me most important in the care of early cases? I can do little more than mention a few which I dare not ignore. While there is no law applying to all cases, and each is a law unto itself, which law the physician should study, yet there are some directions which are applicable to all.

Frankness on the Part of the Physician.—This is necessary. It will help the sick one to understand, aid in the effort for his restoration and add to his courage and patience. It does not depress to tell the truth while uncertainty and lack of confidence do infinite harm.

Rationale of Rest.—In almost all cases of local infection there is a systemic attempt to surround it and render it harmless. If the movements of the body, and especially of the affected organ, can be limited, the tendency to direct absorption and general infection are lessened. Patients should remain in bed if there is a temperature of over 100 degrees F. A fixation bandage, as noted hereafter, may be used. Recently I have adapted a canvass vest which can be adjusted by lacing. and under this, at the site of the lesion, I place a rubber air cushion which can be forcibly dilated. The pressure restricts movement and does not annoy the patient.

Auto-Immunity.—As soon as the fever is under control I believe we may attempt the production of immunity, not by adding to the sum total of tuberculin, but by aiding in the gradual absorption of the tuberculin already existing in the patient. A graduated chest exercise may be directed, or passive stimulation by means of the percussion hammer or the mechanical vibrator. I am not yet ready to assert the value of this procedure, but I have several cases which respond to external stimulus.

Autoinfection.—Not only is autoinfection possible from pulmonary lesion, but I have been led to think that often there may be autoinfection from the intestinal tract. The intercurrent diar-

rhea and the distended ascending colon are suggestive, especially when we know that bacilli and pus and fever-producing microorganisms may be found in the feces of the tuberculous. For some time I have found value in the high enema (or rather the enema taken in the knee-chest position). After a week's daily use of this, I often follow with the daily use of the normal salt solution. I am sure that this, with absolute rest in bed, is of value in many febrile cases. Not only has this been of value, but in some cases a complete fast for one or even two days is an advantage. It is not what the patient eats but what he assimilates that is of value. A rest for the digestive tract, a thorough evacuation of the intestines, are often better than overfeeding. Afterwards a plain mixed and varied diet, in small quantities at half intervals may be ordered.

Diet.—There has been much error about the matter of diet for the tuberculous. It is a personal question to be answered only by experience in each case. If digestion and assimilation are normal, something more than the average amount of food may be taken, but if there is disturbance of either function the amount and kind of food should be studied. In the average case I do not believe in the giving of a large number of eggs and excessive amounts of milk. It is wrong to surfeit. While some patients can take a dozen eggs daily and a few can take more, the majority do better on a lesser number. How to eat is as important as what to eat. Neither do I believe that rapid gain in flesh is an index of progress. Vitality is more than *avoirduois* and normal function than tissue accumulation.

Open Air.—The ideal place for the bed-fast consumptive is the second story veranda. Tents may be most unsanitary if not well chosen and cared for. Diurnal changes in temperature and humidity are greatest near the ground. The thing to be desired is an interchange of pure air without much draught. Extremes of heat and cold and of humidity as found in this country are not dangerous (except to the weak) unless too sudden. Many, both sick and well, are finding the outdoor bedroom an all-the-year-round luxury.

Heart tonics in early stages are often indicated. Autopsies show that the heart muscle diminishes in size, and the clinician knows its lessened contractility. At the earliest indication, small doses of strychnin and digitalis, or in cases complicated by atheroma, nitroglycerin, at intervals should be given. If possible the arterial pressure should be noted from time to time.

Hemorrhage is not now so greatly feared as formerly. Experience has shown that except where a large vessel has been punctured, the bleeding may be beneficial by relieving local congestion and stasis. Should it be so marked and frequent as to produce alarm, a simple method

has been for some time my constant usage. Out of 1,700 cases at Mount St. Rose in seven years, eight per cent. were hemorrhagic and I found this method was very effective almost without exception, unless in cases of perforation of large vessels where death came quickly. So often have I used this simple method that I now conclude, that where it fails it has been improperly applied. A towel is made into a roll, very firm and several inches in diameter, the space and size of the kitchen rolling-pin. This is held right angle to the rib directly over the lesion as nearly as can be ascertained. Another towel is passed around the chest, and, as the patient exhales, is drawn tightly and fixed by several safety pins. I know of no other way that seems so effective. Strapping the chest does not answer, and I have tried different compresses that were inconvenient and no better. A little morphia or bromid to quiet, the ice-bag over the bandage, if one wants to do something more, may be added, but as a rule I find the bandage sufficient. Its value depends upon the care with which it is applied. It should be readjusted frequently and worn at least ten days, when the canvass jacket above mentioned may be substituted.

Control of Cough.—There is no symptom that is more aggressive and often times more yielding, than the cough in chronic tuberculosis. My patients are taught how to cough, or rather how to expel the sputum with little coughing. A deep breath is slowly taken, and then a quick, strong expiration, or "exhaust" as one of the men—an engineer—calls it. In some of our wards there is very little coughing. When the pharyngeal and laryngeal irritation is great, relief is often obtained by inhaling a few drops of some anodyne mixture, such as equal parts of chloroform, alcohol, and ether, with a little creosote. This is inhaled from an ordinary drinking glass, or better still, from a glass tube, in the center of which is a little cotton or a small roll of blotting paper. The tube is kept corked when not in use. Sipping hot water is sometimes efficient.

Control of Fever.—As the fever in tuberculosis is conceded to result from absorption of the toxins of tubercle and other bacilli, its treatment is too often futile. Rest is necessary. A degree of fever in my cases means "bed" at least during the rise. More than that means absolute rest. Sometimes patients whose temperature is normal in the morning may be up for a few hours preceeding the fever. The room must be well ventilated. Often they lie on cots on the veranda, but the idea of complete rest, mental as well as physical, if possible, is maintained. The value of the enema has been spoken of. Remembering the advocacy by good authorities of guaiacol externally in typhoid fever, we have used it in a number of cases of tuberculous fever, but the results have not been definite enough to warrant its endorsement. Cool sponging is always grateful.

If the temperature is high, a basin of water is placed by the bedside for the frequent wetting of the towel which the patient keeps on his forehead, or if need be on his chest. It is still better if an attendant use a sponge, allowing the water to evaporate and then applying more.

Control of Night Sweats by Time Stimulation.—The etiology of night sweats in tuberculosis is an unsettled question. It seems reasonable to consider them an evidence of exhaustion, following fever as they often do, and being immediately consequent upon the pulse decline during a sound sleep. This belief and the regularity of the recurrence has led me to adopt a simple and sometimes effective treatment. The time of the beginning of the sweating is recorded as nearly as may be. Afterward the night attendant wakes the patient just before this time and gives an ounce of whiskey. Other stimulants have been tried, but the whiskey seems best adapted. With private patients an alarm clock is sometimes used. Good ventilation, light covering, the whiskey as suggested, and hydrotherapy, especially the spinal douche, are helpful.

In the above I have endeavored to present deductions that I have found of value both in hospitals and private practice and have adopted them till better offers.

DISCUSSION.

DR. W. W. GRAVES, St. Louis: Of course I am not a specialist in tuberculosis, but the point I would like to emphasize in the examination of a patient for tuberculosis is the consideration of the whole individual, rather than a portion of the individual. We should consider him as a whole, not just one part of his anatomy. Strange to say, that is a fact which we, as clinicians, are losing sight of in the overwhelming whirl of laboratory methods. I do not deery laboratory methods, but they are nothing more than the means of extending our powers of observation and in this sense one of great value. There never was a pathological condition that did not manifest itself in the physical condition of the patient. Those who have lived as long as I have will remember with what applause we received the discovery of the tubercle bacillus. For many years that discovery cost thousands of lives, because we said that if we did not find the bacillus the patient did not have consumption, and that is still done to-day. Some doctors like to do easy things; I do not except myself. We all like to do easy things, and we can always find a doctor who will diagnose tuberculosis for us from the examination of the sputum. But we are harking back to the careful study of the individual, yet to-day we often hesitate in our diagnosis in the absence of the tubercle bacillus. When we find the bacillus the patient has not only one foot but is up to the knee in the grave with the other. The hope for tuberculous individuals lies in the recognition of the condition simply by using every method in the careful study of each individual case that comes before us. When Dr. Brown says that 90 per cent. of us have had consumption at some time, it is a safe proposition to consider every patient, who comes to us, tuberculous until he is proved otherwise. One need not say so to his patient until he has investigated. Study his family, if we get the chance, and see how they look. One gets information that way sometimes, but he should also study the individual himself. I cannot tell you how many cases of tuberculosis I have referred to my medical friends, which had come to me

for what they called nervousness, but they were simply "nervous" because they were tuberculous and in a debilitated state. Dr. Brown also referred to a remarkable article by Dr. Knapp, and I have been looking for his signs ever since I read that article. It was not until I met Dr. Brown in my service at the Alexian Brothers' Hospital that I found in him an individual who had read that article, but I have been seeing the heart, the liver, the spleen and about the chest, retractions and cavities since I read that article, and anyone can do it too if he will only look. Knapp's signs are worthy of our most serious consideration. Whenever one can see a cavity and can percuss it and auscultate it, it is pretty sure to be there. If he can see an enlarged heart and can percuss it, it is pretty sure to be an enlarged heart. The more we can train one sense to corroborate another, the more often we will be right. And that brings me to Pottenger's signs. Instead of seeing the organs he says he can feel them. You can feel them just as plainly through the parietes and the abdominal wall as you can on the post mortem table, and his chest muscle rigidity sign is of great aid in the early recognition of pulmonary tuberculosis. We must use every method in studying the whole individual, and if we do so diagnosis will never be easy.

DR. L. H. HEMPELMANN, St. Louis: After hearing Dr. Graves, I want to mention a method of finding the tubercle bacillus not generally known, although Dr. Bauldauf is using it. Sometimes the patients will insist that they do not expectorate, and Bauldauf has found that by passing a tube into the stomach before breakfast and washing out the stomach, it is possible to find the bacilli, when they could not be demonstrated in any other way. I think this method is at times useful. I have found, rather to my surprise, that I have been using Pottenger's sign a long time. I think most of us have noticed the increased resistance while percussing and have drawn conclusions more from the "feel" than from the note produced.

DR. J. M. BELL, St. Joseph: I think that by the time the diagnosis can be definitely and unmistakably made the condition is so far advanced that there can be no hope of recovery. Many of us will not investigate the patient closely enough. I would like to advocate what may be termed a presumptive diagnosis. In an individual with a sensitive mucous membrane, rapid heart action and slight afternoon rise in temperature, conditions which may or may not be tuberculous, if these individuals are put under proper hygienic conditions,—sleeping in the open air, resting, taking a cold morning bath, etc., will, I think, ultimately result in fewer deaths. A patient need not be told that he has tuberculosis. By the use of tuberculin I think many cases of late tuberculosis are seriously lighted up. For that reason I do not think it is worthy of general use.

DR. WM. FRICK, Kansas City: There have been some expressions tending to discourage efforts at laboratory diagnosis, and I do not think that should be done. We all know that there are cases that have been diagnosed by the finding of the bacilli, and the patients have recovered. I think it is at least advisable to make an effort to diagnose by the use of tuberculin where it cannot be made otherwise.

DR. L. A. BAZAN, Clark: I would like to know whether the gentlemen have had any experience with the tuberculin method, as applied to the tear sac. I have heard it said that this was invaluable, the reaction being produced in two or three hours after inoculation, and subsiding in twelve to fourteen hours, if there is tuberculosis, but if there is no tuberculosis the reaction does not take place. When a patient presents himself we make the laboratory test, and we try to find the bacilli, but I think it is too late when we do find the bacilli, to do any good. Certainly there are cases where the bacilli have been found, the pa-

tients sent away and restored to health; but how many healthy people had been infected before they did leave, and how many of these people recovered? I wish those more interested would more carefully investigate the use of tuberculin in the tear sac.

DR. BROWN, St. Louis: One point I wish to emphasize, and that is, that through a complete physical examination and a careful inquiry into the family history a diagnosis can usually be made, but the laboratory evidence, where it is available, should always have a place in the consideration of a case. Where laboratory methods are not available, other methods must suffice. The tuberculin reaction in any doubtful case may help in making a diagnosis. The x-ray also may help.

Every patient coming into your office complaining of gross, or minor, symptoms, should be studied thoroughly by every available means. And those cases that you may rightfully suspect of being tuberculous, of which there are a large number—you may diagnose the condition as being "run down," or you may call it beginning tuberculosis—will receive great benefit by rest, open air and good food.

MALARIA IN INFANCY AND CHILDHOOD.*

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It is not the intent of this paper to review the subject of malaria in a systematic effort to enlarge on the points of order in which we are in the habit of considering a subject, but rather to note some of the difficulties we come in contact with in our low swamp lands in portions of our state, as regards maintaining prophylactic measures.

Those who enjoy the higher altitude of our state may not remember, or know, that in the southeastern part, lying a few miles west of the Mississippi River, we have Little River, which, after the winter freezes and the heavy spring rains, overflows its banks and for perhaps two or three miles on each side of the river, water remains standing for several weeks. As spring advances these waters recede; but we have ponds of stagnant water during the entire year. Every few miles we find a saw mill with water-soaked saw dust surrounding it.

Small plank-covered shanties and tents for the most part constitute the homes of those who are clearing up this land by converting timber into lumber. Screens are looked upon as a nuisance and useless expense by those who live at the saw mill camp. On account of the manner of construction of these houses, screens would not exclude the culex, anopheles and house fly. The discomfort caused by the bite of the mosquito prompts the only prophylactic measures made use of. After the evening meal, the light is extinguished and a pot of smoldered and smothered fire is started to smoke the mosquito away, and in a few homes the mosquito bar or a cloth gauze, is suspended from four poles tied to the bed posts.

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

We are called to a home at these mill camps, occasionally, to find a two year old child lying in its small bed, without a bar over it, suffering from a chill or subsequent fever, yet we find the parental bed draped with the bar. On inquiring as to the neglect in the case we are informed that the child does not seem to mind the bites of the mosquito. These same people, very fortunately, know the therapeutic value of quinin and use it both as a curative and preventive agent. But here we find one greater danger to our infancy and childhood, for in many cases of chronic malaria hemoglobinuria develops which, I believe can be traced, in part at least, to quinin. Thayer states in his admirable work on malaria, "There is little evidence to show that the malarial hemoglobinuria of the southern states is due to quinin." But Krauss says that in such cases quinin without a preliminary purge or a saline to restore the tonicity of the blood, produces symptoms of autointoxication and sometimes hemoglobinuria. The neglected children, who are impregnated with malaria from infancy, show changes from the normal in their growth, *i. e.*, large head, tumid bellies and slender limbs; in fact, when the child at two years, with perhaps its first examination and treatment, presents an open anterior fontanelle, the first treatment suggested to the mind is for rachitis.

Our farmer population who, in many instances, farm a field surrounded on four sides by timber, on account of the more stable improvements and better fitted window and door frames, are using screens for windows and doors.

A movement actuated by commercialism is now on foot to divert the flood waters from Castor and other rivers by a dam or levee into the Mississippi River near Cape Girardeau. If this proposed plan is carried out, our own drainage system, with small additions, will handle our own waters and keep them within the banks of our rivers and numerous dredge ditches. This question is a serious one; and when we remember that in certain districts a very large percentage of illness incidental to infancy and childhood may point to malaria as a causative factor, it becomes a question that demands the energetic effort and study of the profession. It is the earnest desire that this paper may prompt a discussion from which the writer may return to his swamp home better fitted to assist in prophylactic measures.

In a limited study of the mosquito, I have found no *stegomyia* but the *culex* and *anopheles* abound in our district; the *anopheles*, when at rest, is easily recognized by the laity, as it holds the body at an angle with the ceiling or wall—whereas, the *culex* holds the body parallel with the wall. It has been demonstrated that a mosquito would rather bite an infant than an adult. There are three types: Tertian, in which

in which paroxysm recurs in seventy-two hours. Estivo-autumnal, in which the paroxysm recurs in twenty-four or forty-eight hours. If it recurs in twenty-four hours, we have the quotidian form of estivo-autumnal type and can be differentiated only by the microscope from a double tertian type.

The tertian form of the estivo-autumnal type is differentiated from simple tertian from the fact that the paroxysm and accompanying fever consume twice as much time in the former as in the latter. It may also be differentiated by the microscope.

The symptoms are too well known to bear repetition here, and I shall refer to them only as the cold stage, the hot stage and the sweating stage. We have both remittent and intermittent fevers from malaria, the latter being by far the more frequent. In our practice the tertian is the most common. Fever in the second stage reaches a higher point than is usual with the adult, but the accompanying symptoms are less marked than we usually find with the same degree of temperature. Under symptoms I must add that in infants and children with chronic malaria we will find an enlarged spleen and liver and must watch for disturbed functions of the kidney and bladder. Where the trouble is chronic it must cause textile changes in at least the spleen and liver.

The diagnosis rests upon microscope, the therapeutic test of quinin, which I believe should follow the microscope on account of the danger of giving full dose of quinin and destroying the organism. The periodicity of the symptoms is also an aid to diagnosis. Under microscopic work, I feel that I have found real value in Dr. Clemen's suggestions relating to pigmental leukocytes. I have reached a positive diagnosis after failing to find the plasmodia and then confirmed the diagnosis by finding the plasmodium on second slide.

Treatment: Prophylaxis, drainage, kerosene in pools around dwellings, screens, mosquito nettings and cans containing a mixture of oil of pennyroyal, turpentine and kerosene placed in sleeping rooms. Quinin after an attack on every seven days after a twenty-one day treatment.

Medicinal: I usually open bowels as the first part of treatment, with castor oil, and I may or may not use calomel as case demands.

Administration of Quinin: For infants up to eighteen months of age, my preference is the bisulphate of quinin in aqueous solution: from eighteen months to six years, the coco-quinin preparation seems to disturb the stomach less and makes the child more receptive towards the treatment; from seven years to ten, I usually give capsules every two, three or four hours as the case may demand. I very seldom use the sulphate, and if so, use it in an aqueous solution with dilute muriatic acid. While in my practice I use hypodermic injections of quinin. I have

never in the short time I have been practicing felt the necessity of doing so in infants or young children. Children require larger doses of quinin in proportion than the adult.

WHAT SHOULD THE COUNTY SOCIETY DO WITH THE ADVERTISING DOCTOR? *

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In choosing a subject to be read before this honorable body I was at a loss to know just what would be the most appropriate, most instructive and at the same time most interesting one to the members. While I have read some very interesting and instructive essays delivered before this society I have so far failed to see anything touching upon the subject of advertising and "quack methods." This subject, gentlemen, may seem a little foreign to the subject of scientific medicine, at first thought, but after a moment's reflection you will appreciate its gravity and appropriateness, I am certain. It is a condition that every physician, be he a general or a special practitioner, comes in contact with every day of his life and is called upon to defend his good standing, his honor and professional knowledge before the unsuspecting and disinterested public for which he labors. It is a subject that has interested me greatly and one that I have studied considerably. I have studied different men and learned their respective methods and, needless to say, not all of them are exactly alike. With the change from the older methods of treating disease to that of the modern and more scientific methods, there has also come a change of advertising from the old to a newer or more modern method of advertising; and in the body of this paper I shall endeavor to point out some of the various methods in use as an advertising medium employed by advertising physicians who wish at the same time to remain in good standing with honorable men and men who are indeed ethical and true to ethical principles.

The subject is so wide and comprehensive that time forbids a minute analysis, but we will study the following points in an endeavor to explain the methods and reasons for advertising: First, causes for advertising; second, various methods of advertising; third, reflection upon the honor of the medical profession; fourth, results obtainable from advertising, and fifth, the newer methods of advertising. We will take up and describe separately the above points in an endeavor to bring out the more important facts.

The first, or causes for advertising, may be summed up in one sentence: the desire to grasp the almighty dollar and to take undue and cowardly advantage of a fellow-practitioner who, by

his ethical practice, refrains from all such procedures. The advertiser not only wishes to advertise from a financial point of view, but he also desires to appear as an intelligent and learned man, the man who has a wonderful (?) practice, which he cannot care for adequately to the extent of said practice (?); but at the same time he will talk to you for hours telling you how busy he is, and waste hours talking to you upon some trivial subject. Having considered in a general way the causes for advertising we will review the several methods the advertiser employs and his cunning way of acquiring a practice when he is devoid of medical knowledge and must practice from some source other than professional reputation.

Usually the first step is to join a church whose congregation is minus a doctor, or the church having the largest congregation may be the one he casts his lot with. Having joined the church, the gentlemen in question will begin identifying his name in the papers with some wonderful operation he has performed or with some prominent man who has a severe case of lagrippe. He writes out the article and immediately the paper publishes the account of a wonderful and most successful operation that Dr. X has performed upon Mr. Y. Why! Gentlemen, in some of the articles I have read you would be compelled to resort to a microscopic examination to detect the name of the gentlemen operated upon; it is all concerning the surgeon and is usually one of the most simple operations in all surgery; but the laity does not suspect the truth; they consider it wonderful and go along in their ignorant way happy and contented. As an example, I know of one surgeon (?) who operated upon an Italian miner in an adjoining town and three days later published the operation in the town where the surgeon lives. Now, I will ask this question: What interest did the people have in an operation performed upon a person living in another town from that of the surgeon? Nothing at all; it was just a "grand stand" play. I also recall a symposium a firm of physicians gave to the daily paper, containing glowing head lines of a wonderful and serious operation performed by them; the article contained scientific medical terms all through and went on to state that Drs. X and Y said it was one of the most severe and difficult operations they had ever performed.

Another cunning method is having what is commonly called "a capper," his business being to call upon the sick who are under other physicians' care. This office is usually filled by the old woman or old man who has failed in everything they had attempted and usually draw a small salary for the work. They go supposedly upon a visit—just a friendly call, you know—but soon launch upon their premeditated subject and laud Dr. X to the heavens, vaunting his

* Read before the Missouri Society of Medical Secretaries, Hannibal, May 3, 1910.

wonderful cures and what he has done for others afflicted with the same disease. They continue this as a rule until they land their unsuspecting victim and then seek other prey. This is continued year in and year out until Dr. X is advertised far and near and looked upon as a wonderful doctor by the unsuspecting and easily baffled public. Another winning method is the "sitting around method" in a doctor's office. The Doctor will inform the patients to come back to-morrow and all about the same time and probably he will invite some of his most intimate friends to call at the same time—all waiting to see the doctor; these people are usually "deadheads" but nevertheless the plan has an effect. A *real* patient upon entering the office and facing such a crowd will naturally exclaim, My! but hasn't Dr. X a wonderful practice? But Dr. X usually explains that he can wait upon him now as his case doesn't require a lengthy examination and he has a few cases that will require considerable time and he doesn't care to keep the *real* patient waiting. It all has effect but is the most debasing thing that has ever struck the medical profession—pure and simple quackery personified. But the most modern advertising "stunt" promulgated is the hospital advertisement.

A physician in a small town rents a three or four room house, places a bed or two therein and announces to the world that he has a hospital, clean and sanitary and is capable of doing everything from the culinary department up to a laparotomy, all successfully. The hospital is usually named after the doctor and is greatly lauded by the old ladies; but if you should inspect one of these hospitals' (?) you would have to see the label before you would recognize that it was a real live hospital. Nevertheless, it has an effect and the old saying that people love to be "humbugged" is as true here as any place.

While all these several methods usually assist the doctor to a fair practice yet it has a reflex action upon the profession he represents.

The public, day in and day out, read articles published in metropolitan papers concerning charlatans and the wonderful things they have accomplished and are accomplishing. The same public knows nothing of the ability of these men but try it once, perhaps twice—yes, a dozen times. They receive no benefit whatever and of course abuse the charlatan; then when they read of what their local physicians are doing they also look upon them with suspicious eyes, and while the reputation of the doctors for truth and veracity is excellent in the community, having been "stung" once the eye of suspicion is ever on the alert; so this method has its influence for bad and the medical profession suffers and will suffer from such practices. Knowing as we do that such practices are in vogue, we, as members of our respective county societies should take the subject in hand and endeavor to ferret out and

correct such a prevailing evil. But what shall be done to remedy the evil? And how are we going to correct it? And how are we going to resent the indignities offered to the profession by such advertising?

The question of greatest importance is the remedy for this condition. Shall we exclude from membership all medical men who advertise, and shall we banish from the society all members who indulge in such practices? It has been said that such men are more successfully controlled when a member of the society; that we are capable of doing more in a controlling way, that we may point out the folly of their procedures with better results when they are members than when non-members. It has also been suggested that when non-members they feel solitary and lonesome and to some extent lose their professional dignity, consider themselves as outcasts and resort to unprofessional conduct. Again reviewing this subject from the opposite point, we see men who every day grossly abuse the principles of ethics and still remain in good standing with the several societies. They use their membership in the society as a shield and a protection from punishment, they appear professional and ethical while in the presence of physicians and denounce as unethical any newspaper mention of physicians' names, but still they continue to abort the principles of medical ethics at every opportunity offered and explain in a solemn and sympathetic manner that they know nothing at all in regard to the article.

So this is the problem that conscientious and ethical medical men are confronting every day; this is the problem that ethical men must endeavor to adjust and defend the profession's honor and dignity before the public. And how are we going to do so? Are we going to retain them as members of county and state associations? Or, are we going to banish them from the societies and show them up in their true light before the public?

Some will doubtless argue to keep them in and institute reformation; to point out to them their folly and foolish procedure. But I am of the firm conviction that once a man does those things when he is a member of the society, he will always practice advertising to a greater or less extent in the daily press, and reformation is practically out of the question. I believe in warning them against their actions and afford them an opportunity to desist and then, should they continue, take steps to suspend them and picture them as they really are.

How are we going to do this? I will say that it can only be accomplished through the county society, and therein lies the solution of this problem. Needless to say every county medical society holds enough ethical and non-advertising doctors to pass resolutions to the effect that physicians who use the daily press in their profession-

al capacity shall be guilty of unprofessional conduct and punishable by suspension from the society. This seems to be a little drastic, but I firmly believe that by so doing we can succeed in stamping out this advertising business to some extent at least, and place before the public the honor and dignity that so justly belongs to the profession we represent. I believe we already have a most excellent method in vogue for treatment of "advertisingitis" and one that I commend most heartily. I have reference to the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION. The publishing of such articles in the JOURNAL will doubtless have a tendency to shame the guilty members out of such procedures and I would recommend this procedure first of all others; if this fails then allow the society to act and punish the guilty ones by suspension. The one great trouble we have overlooked is, that we have failed to educate the public to the fact that advertising is unethical and contrary to the profession. We have confined ourselves entirely too much to the financial side of medicine instead of the scientific advancement and moral growth of the profession. We should, under the auspices of each county society, publish and explain the code of ethics, point out the fact that good physicians do not advertise but rely upon their knowledge and professional reputation for practice, point out the fact that nine times out of ten newspaper notices originate entirely from the physician mentioned and are not sanctioned by the profession. In other words, educate the public thoroughly in regard to the code of ethics and I am positive that it will have a wholesome effect upon the profession; by so doing we shall be much more capable of combating these newer cults such as Christian science, osteopathy and the charlatan, and at the same time place our own profession in a better light before the public.

We study medicine and practice our profession because we love it; we are brought into contact with fraud and violence, we must prevent unmerited infamy and death, save the widow and orphan from ruin, protect virgin purity, chastity and innocence, restore conjugal harmony and happiness and obviate unjust demands upon fellow-citizens, and when we have fulfilled all these various duties we will have no time for personal laudation. Let us all revive the Hippocratic oath and stand firmly upon its teachings: "I swear by Apollo the physician, by Aesculapius, by Hygeia, Aponacea and all the Gods and Goddesses, that, according to my ability and judgment, I will keep this oath and stipulation. To regard him who teaches me this act equally dear to me with my parents, to share my substance with him and relieve his necessities if required; to look upon his offsprings upon the same footing as my own brothers and to teach them this art, if they should wish to learn it, without fee or stipulation; and that by precept, lecture and

every other mode of instruction, I will impart a knowledge of this art to my own sons, to those of my teachers and to disciples bound by a stipulation and oath according to the law of medicine, but to no others. I will follow this system of regimen which according to my best judgment I consider best for my patients and abstain from whatever is injurious. I will give no deadly medicine to any one if asked, nor suggest any such counsel. Furthermore, I will not give to a woman an instrument to procure abortion. With purity and holiness will I pass my life and practice my art. I will not cut a person who is suffering from stone but will leave this to be done by those who are practitioners of such work. Into whatever house I enter I will go for the advantage of the sick and will abstain from every voluntary act of mischief and corruption, and further, from seduction of females and males, bond or free; whatever, in connection with my professional practice or not in connection with it, I may see or hear I will not divulge, holding that all such things should be kept secret. While I continue to keep this oath inviolate may it be granted me to enjoy life and practice of my art, respected always by all men, but should I break through and violate this oath may the reverse be my lot."

THE CUTANEOUS TUBERCULIN REACTION IN CHILDREN.*

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The value of the test of Clemens F. von Pirquet as a diagnostic measure has become so nearly determined that it seems timely to review the results as published in the literature. During the past year I have also had the opportunity of observing the test as frequently performed in some of the children's dispensaries and hospitals in Berlin, where it is regarded as a procedure that is well founded and of great diagnostic help. In the last six months we have tried it in a great variety of cases at the University medical dispensary. I shall not attempt to compare it with the percutaneous test of Moro, which has its advocates and seems to be efficacious. The ophthalmic reaction has not met with general favor because of the reports of occasional untoward results.

The extensive employment of the v. Pirquet test has brought out the fact that the number of children harboring latent tuberculosis is greater than we formerly knew, and that we can now recognize them and institute treatment toward the prevention of an active development, which proves so rapidly fatal in certain tissues of the body. A miliary infection of the lungs in a

* Read before the Jackson County Medical Society, May 24, 1910.

child is apt to be far advanced before the physical findings are discovered, with the result that the treatment is too late to be of benefit. The simplicity of the cutaneous test and its applicability in the routine examination of children who present no manifest evidences of tuberculosis, enables one to isolate for observation and prophylactic care those children who show a positive reaction. I have not seen an instance of any accident connected with the v. Pirquet test, so that it can be regarded as entirely harmless.

The explanation of the meaning of a positive reaction as given by v. Pirquet is, that the light-red inflammatory zone around the spot of tuberculization is the evidence of the antagonism on the part of the specific antibodies which have formed in an individual previously infected with tubercle bacilli. These antibodies are present in sufficient quantity to digest the tuberculin locally introduced into the organism. The positive reaction fails therefore in some cases of chronic tuberculosis, or in emaciated individuals, because the antibodies are insufficient. The failure is found in advanced miliary and meningitic tuberculosis. In the first weeks of measles the reactivity against tuberculin is absent. The positive reaction in adults is so common as to be of slight diagnostic benefit because so many adults have been infected at one time or another.

v. Pirquet maintains that in children a positive reaction in an individual showing no definite physical symptoms is a serious warning; like individuals giving a negative reaction after two or three tests are not tuberculous. The test is of greatest value in determining the questions of whether tuberculosis exists in cases of marasmus, bone lesions, anemia, emaciation, doubtful bronchitis or bronchopneumonia, adenopathies, furunculosis and other skin lesions, and in early doubtful meningitis.

In May, 1910, I made cutaneous tests on seventy-five children, inmates of the Gillis Orphan's Home. Physical examination failed to show any tuberculosis in the institution, and the figures are not of particular value except as they warn us to watch closely those children showing positive reactions. These seventy-five children ranged in age from two and a half to fourteen years. Nineteen were 6 years old and younger and gave no positive reactions. Of the fifty-six who were 7 years old and older eleven gave positive reactions. There were two positive reactions in children aged 11; there was one positive reaction in a child aged 10; there were four positive reactions in children aged 9; there were three positive reactions in children aged 8; there was one positive reaction in a child aged 7.

Of these children the only ones in the institution known to have tuberculous parents all reacted positively (four cases). The family history of the other seven children is not obtainable at this time. Two of these seven are ten pounds

below weight. Of the remaining five of these eleven positives, the previous family and personal history is unknown up to the time of entering the institution. Some of these are probably harboring latent tuberculosis.

This group of tests seems to confirm the observations of others, that in children over six years of age the test is not so reliable. In all these children under seven who were tuberculosis-free not one responded positively.

Shaw and Laird, in July, 1909, reported the cutaneous test made on 330 children in three orphanages in Albany, N. Y., and the percentages of positive reactions on these 330 clinically well children, according to age groups are:

Children under two years, positive, 2.5 per cent.; children aged 2 to 3 years, positive, 7. per cent.; children aged 3 to 4 years, positive, 14. per cent.; children aged 4 to 5 years, positive, 25. per cent.; children aged 5 to 6 years, positive, 30. per cent.; children over 6 years, positive, 45. per cent.

These investigators state that these figures accord with the many other statistics, showing that latent cases of tuberculosis increase in frequency with the age of the child.

Von Pirquet, since coming to Johns Hopkins, reports the testing of all the 227 children in a Baltimore orphan asylum. Not one child less than a year old reacted positively; there were six positive in children between the ages of one and three years, and 19 positive between four and six years. He took the opportunity of isolating these children from those proved negative in order to give them the proper care and to avoid danger of infection to others.

Max Bruckner, in the *Jahrbuch für Kinderheilkunde* for September 2, 1908, reports the studies upon one hundred and sixty cases in a children's institution in Dresden. Excluding all cases of manifest tuberculosis, he found the percentage of latent tuberculosis, as shown by positive reactions, to be as follows:

In the first year, 0. per cent.; in the second year, 23.5 per cent.; in the third year, 21.1 per cent.; in the fourth and fifth years, 23.5 per cent.; in the sixth and seventh years, 40.5 per cent.; in the tenth and fourteenth years, 29.4 per cent.

Four of the children with positive reactions came to autopsy. Three showed characteristic changes of tuberculosis. Of eleven negative cases coming to post-mortem, ten were free, while the eleventh showed a miliary infection of the lungs and liver.

Hellesen, assistant in the University Children's Klinik in Christiania, reported in June, 1909, the results of the test upon 418 children. He states that robust children gave a more marked reaction; those suffering from bone tuberculosis and scrofula showed a more pronounced reaction than those who had the pulmonary disease. The

figures he gave are: 97 per cent. of cases of clinical tuberculosis gave a positive test. Two negative cases were afflicted with advanced tuberculous meningitis; 63 per cent. of cases of suspected tuberculosis showed a positive reaction. Among these were twelve out of thirteen cases of pleurisy with effusion. Seven cases of enlarged bronchial glands were positive; 23 per cent. of the remaining 301 children with no clinical tuberculosis were positive. Out of eleven cases coming to autopsy, three positive cases were tuberculous and one was undetermined. The seven cases were tuberculosis-free.

Hellesen concludes that the reaction is specific, a positive one proving that the disease exists to some degree, while a negative one excludes tuberculosis except in a generalized or advanced case.

Von Pirquet at the February 8, 1910, meeting of the Philadelphia Pediatric Society (*Archives of Pediatrics*, March, 1910), reports the post-mortem findings in 308 children who had been given the cutaneous test at the clinics of Escherich and Moser in Vienna, as follows: (1) Of 190 children giving a negative reaction, 161, or 85 per cent., were free of tuberculosis at autopsy. (2) Of fourteen children giving a negative reaction at the first trial and later a positive one, twelve cases, or 91 per cent., were found tuberculous at autopsy. (3) Of 124 children giving a positive reaction 123, or 99.2 per cent., were found tuberculous at autopsy.

Mr. A. Dingwall Fordyce, Royal Hospital for Sick Children, Edinburgh, stated in the January 20, 1910, *British Medical Journal*, that the cutaneous tuberculin reaction is, in his opinion, of marked value, especially in differentiating a certain form of chronic dyspepsia in children, which is similar to early tuberculous infection. He thinks that a positive reaction is indication for active antituberculosis treatment.

Calmette stated, at the 1909 meeting of the British Medical Association, that it is advisable in children to use first the cutaneous test. "If this is positive one may conclude that the patient is the bearer of old or new tuberculous lesions." This evidence, he stated, is enough if the child is no older than three years. He said statistics show that 96 per cent. of positive reactions in children under three years are tuberculous. He believes, however, that the "ophthalmo-diagnosis" is more precise in pointing to tuberculous lesions actually in evolution or incompletely cured.

Osler, in discussing the subject at the 1909 meeting of the British Medical Association, stated that the reactions of v. Pirquet and Calmette are of extraordinary benefit in the diagnosis of obscure cases. He believes that in the routine examination of school children those cases presenting positive reactions in which the tubercu-

lous lesions are closed, are available for hygienic and dietetic treatment; while those with open lesions are dangerous and should be isolated.

In the technic it seems to make no difference whether an unmixed (pure) old tuberculin is used or a dilution such as the following:

Tuberculin, 25 parts; 5 per cent. carbo-glycerin, 25 parts; normal salt solution, 50 parts.

A description of the procedure is unnecessary as it is well known. I have used all sorts of instruments for indenting the skin, using care in sterilizing the instrument and the skin. The preparations of Parke Davis, Mulford and others have been employed. No dressing is necessary unless excessive itching occurs.

In conclusion I will say that I have found the reaction confirmatory in tuberculosis of the knee, in beginning Pott's diseases, in tuberculosis of the glands of the neck, and in a variety of other manifestly tuberculous cases. The test was negative in one case of suspicious brain tumor in a five-year-old girl, which, on autopsy, proved non-tuberculous. I believe that the test confirms the conclusions of von Pirquet and others that it is of great value in the early diagnosis. One must make a small allowance for error in the technic, for inability to locate definitely the tuberculous lesion, and for a certain number of cases which were once infected but at the time of the test are healed. If in a suspected case without clinical evidence two or more tests are negative, one can say that tuberculosis is absent. If the reaction is positive, even in an unsuspected child, there is no harm in accepting it as a warning, and instituting the proper fresh air and nutritive treatment that the child should have.

SOME OBSERVATIONS ON THE MANNER OF POST-GRADUATE TEACHING OF NEUROLOGY IN AMERICA.

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For some time it has been apparent to teachers of medicine, particularly of the special branches, that something must be done to improve our facilities and methods for post-graduate instruction in America. To that end many dispensaries have been utilized in connection with the larger hospitals, and new clinics and outdoor services have been established. Resident pathologists have been installed and pathological demonstrations instituted to prepare students for a better understanding of clinical cases. Many other steps have been taken, all tending to make up a deficiency which has long existed in the department of advanced medical instruction. The lengthening of the course of undergraduate instruction and the raising of entrance requirements for American medical schools have done much to improve the quality of the student body, and as a result we

find many post-graduate students preparing and equipping themselves in their own country for the teaching of advanced medicine in all of its branches.

The above-mentioned facts, along with many others, have in the last ten years entirely changed the aspect of post-graduate work in America, so that at present a physician going to any of the medical centers of America, such as Chicago in the West, or New York, Boston, Philadelphia or Baltimore in the East, is able to obtain a course in advanced work in any branch of medicine that will compare favorably with any offered abroad. He will find that arrangements can be made for individual instruction both in laboratories and ward work, and that the cases presented by the heads of the various departments have been carefully studied and worked out before they are brought before the class for demonstration. He will find our foremost clinicians and laboratory investigators at the head of carefully prepared courses in eye, ear, nose and throat work, and our masters in surgery giving instruction in surgical pathology and technic. The field of internal medicine has been especially well covered in America for many years.

Recently courses have been arranged in several eastern cities for the teaching of neurology, and it is to this last named branch that most of my remarks will have reference. Neuro-pathology is comparatively a new field of work in America, but is receiving now such attention in Philadelphia, in connection with the laboratory of neuro-pathology in the university, and the clinico-pathological work done by the Blockley staff, drawn from the chief medical schools of Philadelphia, as to invite the attention, not only of workers in our own country, but of those abroad. The course of neuro-pathology offered by Dr. Spiller and his assistants is one of great value. The laboratory of neuro-pathology contains an unusually large number of specimens illustrating all forms of gross diseases of the nervous system—brain and spinal cord-tumors, hemorrhages, abscesses, inflammatory and other lesions—in short, almost everything that is desirable to be seen in such a course. Many of these gross specimens are mounted in such a way as to be readily accessible and at the same time are protected.

Post-graduate students have the opportunity in the laboratory of neuro-pathology to pursue special lines of research, as in the laboratories of Obersteiner, Ziehen, Marie and Dejerine, in Austria, Germany and France. Material is freely furnished. The writer has had the opportunity of gauging the value of this material and the work done in connection with it.

The work in some phases of clinical neuro-pathology, as in that of cerebral localization, reaches back many years. Papers on this subject were published by Dr. Mills fully thirty years ago, and neurologic surgical work, such as the re-

moval of tumors, began as early as 1886. Work in this and other lines has gone on and expanded steadily. As it now stands there is little reason why a physician should go abroad for advanced courses in neurology or any special line of medicine, for what few advantages a student may gain in one direction are completely offset by serious disadvantages such as having to contend with a new language, etc.

During the winter of 1909 and 1910 I had the opportunity of observing post-graduate instruction in neurology as given in Philadelphia. Most of the teaching of this branch in Philadelphia is done in the Philadelphia General Hospital, perhaps better known as Blockley, and in the Medical School of the University of Pennsylvania, and the Jefferson Medical College. The neurological wards of the Philadelphia General Hospital were founded and organized by Dr. Charles K. Mills, in 1877, and since that time all of the medical colleges in Philadelphia have made use of the vast wealth of material found there for teaching purposes. Since 1887 the attending neurologists at Blockley have had access to the insane department as consultants and for purposes of teaching and scientific investigation. From observations made in this famous old institution many of the most important contributions to the literature of American neurology have come. I feel I am safe in saying that there is no place in America where neurological material may be found in such great abundance and variety, and so well classified, as in Blockley, and I doubt if there is a place in the world its superior in this respect.

During the recent Christmas holidays I tabulated the cases in the nervous wards there, with the following results:

There was a grand total of 410 cases listed, and among them could be found all the ordinary nervous diseases and many unusual and rare ones. There were ninety-eight cases of different types of the hemiplegic and monoplegic state; fifteen cases illustrating the different types of aphasia; twelve cases of cerebral palsy of childhood; four cases of hydrocephalus; four cases of syringomyelia; many cases of muscular atrophy and dystrophy; twenty-seven cases of tabes; three cases of Friedreich's ataxia; seven cases of multiple sclerosis; a large number of cases of syphilis of the nervous system; and sixteen cases of paralysis agitans, the entire group of which was used at one clinical lecture for demonstration. The above list is in addition to the more than 2,000 cases of insanity.

During my attendance as a post-graduate student at the hospital of the University of Pennsylvania and at the Philadelphia General Hospital I had the opportunity of observing operations covering almost the entire field of neurological surgery. These included radical and decompression operations for brain tumor; opera-

tions for the removal of tumors of the spinal cord and the evacuation of spinal cysts; for circumscribed serous meningitis; nerve sections for various purposes; sections of the posterior spinal roots for the relief of spasticity; operations for nerve anastomoses; peripheral and sensory root sections of the fifth nerve, and extirpation operations on the gasserian ganglion.

Much of the operative work observed by me was done by Dr. Charles H. Frazier, Dr. Edward Martin, and others connected with the university staff.

Post-graduate students sometimes have the opportunity of becoming voluntary assistants, taking regular part in the recording and examination of the cases. Great attention is paid to the manner in which the cases are recorded, as regards not only the history of the case, but also the systematic record of motor, sensory, reflex, visceral and other symptoms.

The outdoor service of the university hospital is provided with a thorough electrical equipment and instruction in electrodiagnosis, and electrotherapeutics is given in courses of five or six weeks.

In connection not only with the neurological teaching, but in the entire work of the neurological department at the University of Pennsylvania, the professors in charge, Drs. Mills and Spiller, take a continuous active interest, attending the dispensary service regularly several times a week, visiting the neurological wards of the hospital almost daily during their terms of service, and also visiting the wards of the Philadelphia General Hospital four or five times weekly. In the different hospital services some practical instruction is given by the heads of the departments at least four or five times a week, this being supplemented and enlarged by the instructors and assistants in neurology.

It is very gratifying to note the practical manner in which neurology is taught here by teachers representing the various schools. The instruction to fourth-year and post-graduate students is almost entirely clinical, every effort being made to demonstrate neurological principles by the actual cases. The material for the clinical lectures on neurology at the University of Pennsylvania is drawn from indoor neurological service of the university hospital and from the outdoor or nervous dispensary service.

The instruction given in ward classes to fourth-year students and post-graduate students is, indeed, most valuable. Careful attention is paid to eliciting symptoms and observing the various groups of symptom complexes, studying the reflexes and various types of gaits, mapping out areas of sensory changes, etc., teaching the student correctly to interpret what he observes. Last, but not least, the student is expected to discuss his findings with the instructor.

The post-graduate student of neurology has offered to him at the University of Pennsylvania the opportunity of receiving the instruction in gross microscopical anatomy of the nervous system given by Dr. George Piersol, professor of anatomy. To the undergraduate of the second year and to the post-graduate, in addition, is offered a course in the dissection and morphology of the brain under the supervision of competent demonstrators. Sufficient material is furnished. Work of this kind can be supplemented by gross examinations of the brains of cases on which necropsies are made, at the Philadelphia General Hospital. In the laboratories of the university are many models of the brain and the nervous system.

ADDRESS BY GOVERNOR HADLEY.

We promised to publish the address of welcome by Governor Hadley at the St. Louis session of the American Medical Association, because it contains many expressions of appreciation of the work of the medical profession and reflects very clearly the governor's notions of the position which the organized profession of the state ought to occupy in the disposition of questions concerning the public health but which it has not yet been permitted to fill. We commend the words of the governor to the careful attention of every member of the Association. The address follows:

Mr. President, Ladies and Gentlemen: I am very glad indeed, as the chief executive of the great State of Missouri, to extend to the members of the American Medical Association a cordial welcome within the confines of this state. I not only welcome you here to our soil, but I welcome you to our splendid Italian—or Siberian—climate. It is a distinct pleasure, this morning, to be with so many learned members of the medical profession. It is so often that we lawyers have the medical profession with us that it is a privilege for us to turn the tables, and we enjoy not only the sense of pleasure, but a sense of security on an occasion such as this, when the laymen realize that there is no danger of anybody dying without medical assistance.

I do not know whether I am in the right place or not. The remarks of the last speaker seem to indicate that there is some question as to whether the American Medical Association is a trust or not. I consider myself sufficiently expert on the subject of trusts, however, to say that this trust is welcome and thrice welcome within the confines of the State of Missouri. I only hope that this trust, which I here now diagnose with complete confidence as a good one, at the able direction of its incoming president, Dr. Welch, can assist in doing for the United States of America what the medical profession, under its outgoing president, Dr. Gorgas, with the assistance of the United States army, has done for the Canal Zone.

I am glad to know that you members of the medical profession not only believe in something besides making money and keeping out of jail, but that you are also willing to fight for your belief; and if the other professions of this country—particularly my own—are to continue to rank among yours in respectability and public confidence it must enjoy the distinguished pleasure of imitating your example.

I trust that the sessions and deliberations of this Association will be of benefit to the people of this state. As has been well said, there can be gathered together no body of men whose deliberations would excite more general interest than the members of this profession. Your work has to do not only with the problem of human weakness and human disease, but it has to do with the overpowering problem of human existence itself. Twice in the life of each of us we require the services of a physician, and your capacity for usefulness is limited to the relief of human weakness and disease. Your work has not only contributed to the advancement of civilization, but it has increased the duration of life and added to the capacity of man for healthful and proper enjoyment.

Sometimes, in your efforts to make progress and to acknowledge error, doubt is aroused and suspicion raised in the minds of the layman as to the science of your profession itself; when we find one year a certain method of treatment of disease is abandoned and a radically different method adopted, the cry is apt to be raised that, after all, the practice of medicine is but an intelligent system of empiricism, and that we are taking long chances when we summon a medical man to help us in distress. To my mind, that is one of the most hopeful indications of progress that unfortunately is not imitated by all of the learned professions. The advancement of the medical profession along scientific lines constitutes one of the great achievements and triumphs of this wonderfully progressive age.

It may be, however, that we are moving in cycles, because it is unquestionably true that much that you do to-day has been done in the past and then been forgotten. I find that many of the instruments with which you surgeons perform your most delicate and scientific operations have been discovered in the ruins of antiquity—indicating that these operations were unquestionably known to and performed by the ancients. But, however that may be, it is a far cry from the herbs and incantations of the medicine-man of the savages to the asepsis of the operating-room and the antitoxins of the scientific medical man of to-day. And the work you have accomplished along that line, although it may seem at times to cause public distrust or lack of confidence, is simply, in my judgment, an indication of the feverish anxiety that you have to move faster to the consummation which I am confident you will eventually reach when you find an antitoxin for every disease that is known to the human system.

I have heard a story from one of the leading medical men of this country, told with anguish of spirit, as to how he lost a splendid boy from diphtheria, because physicians, although they had discovered the antitoxin of that disease, had not yet learned the science of its administration. But no one can stand by the bedside of a child, watching it clutch its mouth and throat in its fight for air, and see the wonderful effects of the administration of antitoxin against diphtheria, without taking off his hat in gratitude and respect to the scientific medical man for this wonderful contribution to the development of medical science.

Truth never seems so simple as when it has been scientifically ascertained and announced; and after many of these things you medical men discover and tell us about we wonder that you did not discover them and tell us about them many years ago. Nobody of intelligence to-day questions the germ theory of disease, and yet that theory was scientifically ascertained and definitely announced within my own lifetime. To-day the medical profession knows accurately the habits and all the characteristics of the germ of tuberculosis. We are simply grateful to you for having done so much, and that you have taught the individual how he may substitute himself in the manufacture of vaccines from his own person and prosecute this work of segregation for himself.

But your activities as a profession, fortunately, have not been confined to these professional investigations and discoveries that have to do with the treatment of special diseases. I undertake to say that your work along the lines of preventive medicine and of the movements for the improvement of the public health are, more than any others, the reasons why the medical profession holds—as it does hold to-day—its deservedly high rank in public estimation and esteem, and the work and the future usefulness and development of the medical profession, in my judgment, will lie not so much in curing or in making sick people well as in preventing well people from becoming sick. Along the line of correction of those conditions which result in the impairment of public health, medical men and the public official have come in contact and the public official who is performing his duties with the sense of proper obligations has found in the medical man not only a willing but an effective coadjutor for the accomplishment of proper results. And I undertake to say that the time is not far distant when the American people will recognize the inconsistency—if not absurdity—of spending millions of dollars each year for the protection of our cattle and our sheep and our hogs from the ravages of disease and spending but a few paltry dollars for the protection of our women and men and children.

I am glad to welcome you to the confines of this splendid commonwealth this morning, because public sentiment of this state has been in accord with the work of the advanced and progressive members of your profession. Up to the last session of the state legislature we had only a state board of health, with limited powers for the accomplishment of those measures of possibility that always lie within the work of such a board. By that legislature there was enacted a law establishing in this state a bureau of vital statistics and giving new powers to the state board of health for the accomplishment of the proper measures of usefulness.

That bureau of vital statistics has been in operation for three months or more, and during that time statistics have been kept and recorded, and I am glad to say this is an indication of the effectiveness of the medical profession in a certain class of cases, namely, the births numbered 16,000, while the deaths were only a little over 12,000. So, you see, here in Missouri we are both the opponents of race suicide and believe in the principle of the "full baby-buggy."

Further than this, I have taken the position that the state board of health should be composed of men who are interested in one of two lines of medical work. As I have the appointment of that board, I have a right to discriminate, and that board must be composed of physicians who have been interested either in the improvement of medical education or in the protection of public health. I have appointed, and I intend to appoint, on that board only members who receive the endorsement or recommendation of the State Medical Association.

I do not disregard or hold in light esteem the work of those investigators and, perhaps, I might say reformers, who are undertaking to improve the conditions of our public charities and our penal and reformatory institutions, when standing before this audience of medical men; and I feel it would not be improper for me to repeat what I said when standing before a convention composed of workers along these lines of public charities, that I have received from no department of the government so much sane, practical and effective assistance in the correction of conditions in our eleemosynary and penal institutions as I have received since I have been Governor of Missouri from the inspections and recommendations of the state board of health. In the work of improving the Missouri penitentiary we have succeeded in changing it from one of the worst penitentiaries in the country to

one of the best, and in so doing I have received valuable aid from the inspections and the suggestions for improvement that have been given me by members of the state board of health.

I understand, Mr. President, that the time of these speeches is limited to five minutes. I have some time yet allotted to me, and there is one other thought I must give expression to before my time is expired, and that is this: You, as a profession, are able to put your own houses in order. You have cleaned up your own Augean stables by driving from your ranks the quacks and abortionists and the charlatans and the impostors. I want to say to you that the state board of health in the State of Missouri has been actively on the firing-line, fighting a battle for a clean profession against the elements which foster disgrace and dishonor. In that regard I can say again, to the other profession, the legal profession, if it is to continue in public confidence and approval, it must follow your example, because we have in our ranks quacks and abortionists and charlatans and impostors in our pettifoggers and shysters and ambulance-chasers, and

a certain class of lawyers who are all the more disreputable because, with greater capacity for injury in our legislative and judicial lobbyists, in eminent lawyers who, in order to screen rich clients, violate the law and bring the legal profession into disrepute, securing for them immunity.

I trust that in the general beneficial influence that will come from the deliberations of this convention there may percolate down or gravitate up to the legal profession something of that spirit of modern medicine which demands that the learned professions shall also be kept clean.

In conclusion, we welcome you here with interest and enthusiasm. I welcome you not only as the governor of the state, but also as the Mayor of St. Louis. They go through the ceremony every four years of electing a mayor here [laughter], but I happen to appoint the police power, and therefore I want to say to you, in conclusion, that the immunity that has already been extended to you by Dr. Moore was not a sounding brass or tinkling cymbal. We welcome you with pleasure, not only to our city, but also to our homes and to our hearts.

LANE'S CONCEPTION OF CHRONIC CONSTIPATION AND ITS MANAGEMENT.—By A. B. Cooke, M.D., of Nashville, Tenn.

In his monograph, entitled "The Operative Treatment of Chronic Constipation," Mr. Lane first defines the scope of the treatise by stating that the term, chronic constipation, as he employs it, includes all those conditions which are "the consequences of the accumulation of material in the intestinal tract for a period sufficiently in excess of the normal to produce on the one hand alteration in the gastro-intestinal tract and in other viscera, and on the other hand toxic changes from absorption." The fact is emphasized that while constipation is usually marked by infrequent hard stools, there may be a daily evacuation, and in exceptional cases the motions are loose and frequent.

The two chief pathologic factors in the production of chronic constipation, according to the author, are enteroptosis and acquired mesenteries or adhesions, the latter resulting not from inflammation, but being developed to oppose the displacement of viscera, the tendency to which exists whenever the erect posture of the trunk is assumed. The displacement and fixation of the several portions of the colon in faulty positions result primarily in defective drainage, and secondarily in auto-intoxication and pathologic changes both in the gut itself and in the other abdominal viscera.

After describing these changes in detail, the author proceeds to discuss their immediate and remote effects, advancing the idea that in many cases diseases of the appendix, gall-bladder, stomach, duodenum, pancreas, kidneys, ovaries, etc., must be regarded as sequelæ of chronic constipation. In addition the phenomena resulting from toxic absorption are graphically described and the importance of their recognition stressed.

With reference to treatment Lane states that "in no circumstances should operative interference be contemplated till the surgeon has satisfied himself that every means of treatment has failed, whether medical or mechanical." The surgery indicated depends upon the conditions present. In mild cases in which non-operative measures have failed, division of the adhesions and constricting bands may be effective. Severe cases call for more radical surgery consisting either in dividing the ileum and anastomosing it with the sigmoid or upper rectum, thus short-circuiting the fecal current, or, when pain is a prominent factor in the case, removal of the colon in addition.

The writer of the paper, after personal observation of Lane's work, regards his conception of the nature and management of the malady with much favor and thinks it entitled to serious consideration at the hands of the profession (Am. Proctologic Society, St. Louis, June 6, 1910).

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

AUGUST, 1910

EDITORIALS

REFORMS AT THE PENITENTIARY.

Conditions at the State penitentiary have been materially improved since the report of the Senate committee, appointed to make an investigation last year, disclosed the fact that the sanitary and hygienic conditions were barbarously crude and so imperfect as to constitute a menace to the health and lives of the inmates. Although we are in possession of little or no authoritative information concerning the improvements that have been made, or that are contemplated, we learn from the newspapers that at least bath tubs have been placed where they can be used, and, more important still, that the inmates are compelled to use them; that toilet facilities are better, and the cells have been made more habitable for human beings.

We gather further from the newspapers the information that Governor Hadley is making experiments with a new method of reforming some of the inmates. The Governor believes there are many convicts in the penitentiary, particularly among the young men and also among boys in the Reform School, who would willingly grasp at a chance to outgrow the stigma of incarceration in either institution, and such persons Governor Hadley proposes to parole and place on farms where they will be given every opportunity to live healthful lives and forget their unhappy experience in the past. Thus far, fifteen young men have been paroled on these terms.

The plan is a commendable one, and we shall watch its workings with a great deal of interest.

UNSANITARY BAKERIES.

No leniency should be extended to proprietors of bakeries who fail to keep their shops clean and sanitary. Immediate closure should be the penalty of negligence of the simple rules of sanitation in this industry. An inspector of the St. Louis Health Department recently discovered a bake shop in the Ghetto, where the conditions were "simply nauseating," yet the proprietor was allowed to continue in business several weeks before a positive order to clean up or close up at once was issued against him.

The dirty bake shop in any community is a disgrace to that community and a menace to every person who eats bread baked in unsanitary surroundings. There should be a system of inspection of bakeries not only in the large cities but throughout the state. Stringent rules should be established and competent and conscientious inspectors employed to enforce them, and immediate closure should be the punishment for shops in which the rules were disregarded after the first warning against disobedience. Bakers would then find it more profitable to maintain clean and sanitary kitchens than to disobey the law.

A clean bake shop, however, gives no guarantee that the bread is clean when it is put on the table. Keeping the shop clean is only the first step in the effort to give the people clean bread. It needs no argument to convince even the most casual observer, that bread handled by drivers of delivery wagons cannot remain clean many minutes after leaving the bakery. From the time it is dumped into the wagon until it reaches the consumer, our bread is tossed about by unclean persons, thrown into unclean bins and boxes, investigated, sampled and made a depository by flies, and finally delivered to the consumer by unclean grocery clerks, who wet thumb and finger to grasp unclean paper for wrapping the loaves. Not until bakers are compelled to enclose each loaf of bread in a sealed wrapper, will we have an approach to clean bread.

COMMENTS ON NEW FORM OF THE JOURNAL.

The new form of the JOURNAL is generally approved by the members, and many expressions of appreciation have come to us. The publication committee and the editor desire to express their appreciation of this evidence of the interest which the members are taking in the conduct of the JOURNAL. We append below a few commendatory passages from letters received:

"I have heard a great many very complimentary things said in regard to the JOURNAL since a change has been made in its make-up. I think the profession as a whole is greatly pleased with it. The publication committee should be congratulated."

"I believe we will all like the new form of the JOURNAL and appreciate the change that has been made."

"Allow this secretary to compliment you on the improved MISSOURI STATE MEDICAL JOURNAL in its new dress."

"The JOURNAL is, I think, improved by the present form."

"The July issue of the JOURNAL at hand; congratulations. It looks good, is good."

"While I have always liked the JOURNAL as published in the past, I think you have made a very decided and desirable improvement by the change in the current issue."

"I think a vast improvement has been made in the JOURNAL."

AN IMPOSTOR.

The Merry Optical Company request that we publish a warning to members against having any dealings with a person styling himself Dr. Luft, and representing to be an agent of the Merry Optical Company. Luft's game is to sell optical outfits to doctors and collect in advance, promising that the goods will be shipped later. The Merry Optical Company says he is an impostor and they are anxious to locate him.

Luft is described as being about 5 feet, 6 inches tall, weight 150 pounds, age about 55 years, dark complexion and dark mustache, and speaks with a decided German accent. He carries Merry Optical Company stationery, boxes branded "Merry Optical Company" which contain outfits, and he shows a knowledge of fitting glasses.

If any member discovers Luft he is requested to write at once to Merry Optical Company, 1009 Walnut St., Kansas City.

NOTES

THE TWENTY-THIRD annual meeting of the Medical Society of the Missouri Valley will be held at Council Bluffs, Iowa, September 1 and 2. Orations on medicine and surgery are promised by men of national reputation, and the general program is very inviting.

THE LIST of members present at the Hannibal meeting as published in the July issue, has caused some little comment on account of the indefinite caption "Register of Members," some members regarding the list as a list of the entire membership of the Association. Of course this is wrong. The caption should have been more explicit, and stated that it was a register of the members present at the meeting only. Some members were present who did not register. Their names of course did not appear in the list.

THE NEXT annual meeting of the Medical Association of the Southwest will be held at Wichita, Kansas, October 11 and 12. The central location of Wichita, the ease with which it can be reached, the assurance of a splendid program and the Wichita brethren pledging that

those who attend will have the time of their lives, are inducements that should attract the largest gathering in the Association's history. For further information concerning the meeting address Dr. F. H. Clark, secretary, El Reno, Oklahoma.

THE ACADEMY OF MEDICINE, of Liberty, Mo., has completed its first year of work and a very satisfactory one it has been. Although numbering only eight members they have made up in work what was lacking in numbers. The society meets each Friday night in the month, one member reading a paper and all discussing it freely. The work in the past year has been devoted to a thorough study of the ductless glands, the blood and the kidney, together with the more rare diseases which they seldom meet with in that community; in fact, they make it a point to study only the unusual cases. With this they have had quite a variety in post mortem examinations with the findings and specimens studied. Several prominent physicians of Kansas City have lectured on a variety of subjects. The society has taken a step in advance of the County Society by inviting the dentists and veterinary surgeons of Liberty town to take part. By such an association it is believed they can aid each other in limiting the spread of, and in stamping out, many diseases. By this close association they have not only added to their knowledge but have been able to eliminate much of petty grievances which often arise among practitioners in the same community, thereby making the profession a unit in fighting disease.

AMERICAN PUBLIC HEALTH ASSOCIATION.—The thirty-eighth annual meeting of the American Public Health Association will be held at Milwaukee, Wis., from September 5 to 9, next. It is expected to make this the largest, most profitable, and most enjoyable meeting that the Association has yet held. Any desired information concerning local arrangements will be cheerfully furnished by the chairman of the local committee, Dr. G. A. Bading, 2511 Wells street, Milwaukee, Wis.

Persons desiring to read papers should communicate at once with the chairman of the program Committee of the General Association, if the paper is one that can properly be read at one of the General Sessions. The program for the General Sessions is already well filled, and members offering papers now can not be promised places. If, however, the paper is one that should come before one of the Sections, address the chairman of the Program Committee of the Section before which the paper should be read. The names and addresses of these committee chairmen, are as follows:

General Association, Dr. C. O. Probst, chairman, Columbus, Ohio.

Laboratory Section, Dr. John A. Amyot, chairman, Toronto, Ont.

Section on Vital Statistics, Dr. C. A. Harper, chairman, Madison, Wis.

Municipal Health Officer's Section, Dr. G. W. Goler, chairman, Rochester, N. Y.

The Section on Vital Statistics has arranged a program including a number of papers of special interest concerning the registration of vital statistics, particularly the registration of births. It is hoped that the Section will adopt additional rules of practice governing statistical work, and that it will be able to formulate some standard forms for tables for the presentation of statistics in bulletins and reports.

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.—A special report on birth registration is being prepared under the direction of Dr. Cressy L. Wilbur, Chief of the Division of Vital Statistics of the Bureau of the Census, for the first annual meeting of the American Association for Study and Prevention of Infant Mortality, which will be held in Baltimore in November. The report of the committee on birth registration will be presented at the session on municipal, state and federal prevention, of which Dr. Wm. H. Welch is chairman. The members of the committee on birth registration include in addition to Dr. Wilbur:

Dr. Wilmer R. Batt, Commissioner of Vital Statistics, Harrisburg, Pa.

Dr. Charles V. Chapin, Commissioner of Health, Providence, R. I.

Dr. John S. Fulton, Secretary-General International Congress on Hygiene and Demography, Washington, D. C.

Dr. John N. Hurty, Secretary State Board of Health, Indianapolis, Ind.

Dr. Wm. C. Woodward, Health Officer, Washington, D. C.

The meeting will open with a general session on November 9. On the 10th and 11th there will be four special sessions, as follows:

Municipal, State and Federal Prevention.—Chairman, Dr. Wm. H. Welch, Johns Hopkins Medical School, Baltimore; Secretary, Dr. John S. Fulton, Secretary-General International Congress on Hygiene and Demography, Washington.

Medical Prevention.—Chairman, Dr. L. Emmett Holt, 14 West Fifty-fifth Street, New York City; Secretary, Dr. Philip Van Ingen, 125 East Seventy-first Street, New York City.

Educational Prevention.—Chairman, Dr. Helen C. Putnam, chairman of the committee to investigate the teaching of hygiene, appointed by the American Academy of Medicine, 1903, Providence, R. I.

Secretary, Prof. Abby L. Marlatt, Department of Home Economics, University of Wisconsin, Madison, Wisconsin.

Philanthropic Prevention.—Chairman, Dr. Hastings H. Hart, Director Department of Child-Helping, Russell Sage Foundation, 105 East Twenty-third Street, New York City. Secretary, Mr. Sherman C. Kingsley, Superintendent United Charities, Chicago, Ill.

Every section of the country is represented in the directorate.

For information or circulars write to the executive secretary, Gertrude B. Knipp, at the headquarters of the association in the Medical and Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore, Md.

THE AMERICAN HOSPITAL ASSOCIATION.—The Twelfth Annual Conference of the American Hospital Association will be held at the Planters Hotel, St. Louis, September 20, 21, 22 and 23.

The special committees will report on subjects of unusual interest at this meeting. The Special Committee on The Education and Training of Nurse Assistants for the Care of People of Limited Means in their Homes and the Nursing of Patients Suffering from Chronic Diseases will make a report which will be of interest to hospital workers and physicians in general. The report of the Special Committee on Bureau of Hospital Information and permanent Secretaryship will deal with the advisability of establishing a permanent headquarters or office for the Association.

Members who desire to have any moot questions on hospital affairs discussed at the convention will please draw up the questions and mail to Dr. R. W. Bruce Smith, Parliament Building, Toronto, Ont.

Drs. O. H. Elbrecht and Wayne Smith of St. Louis, are in charge of the local arrangements for the meeting. The preliminary program presents the following papers:

"Relationship of Trustees to Superintendent." Dr. Henry M. Hurd, Johns Hopkins Hospital, Baltimore, Md.

"Private Rooms in General Hospitals." Dr. C. Irving Fisher, Presbyterian Hospital, New York City.

"The Training of Hospital Superintendents and Heads of Departments." Dr. F. A. Washburn, Supt., Mass. General Hospital, Boston, Mass.

"Co-operation vs. Individualism in the Care of the Sick." Mr. Bailey B. Burritt, Secretary State Charities Aid Association, New York City.

"Preparation and Use of Detailed Reports for Smaller Hospitals." Mr. Walter Mucklow, Director, St. Luke's Hospital, Jacksonville, Fla.

"The Education of the Nurse in America." Dr. Richard O. Beard, Secretary, University of Minneapolis, Hospital, Minneapolis, Minn.

"The Hospital as a Commercial Factor." Mr. Del T. Sutton, Editor, International Hospital Record, Detroit, Mich.

"Methods of Raising Funds for a General Hospital." Miss Lucia L. Jaquith, Superintendent, Memorial Hospital, Worcester, Mass.

"Hospital Construction in St. Louis." Dr. Wayne Smith, Superintendent, University Hospital, St. Louis, Mo.

Report of Special Committee on Education and Training of Nurse Assistants for the Care of People

of Limited Means in their Homes and the Nursing of Patients Suffering from Chronic Diseases. Committee: F. A. Washburn, M.D.; Miss Mary Riddle; Chas. H. Young, M.D.

Report of Special Committee on Bureau of Hospital Information and Permanent Secretaryship. Committee: Dr. S. S. Goldwater, Mt. Sinai Hospital, New York City; Dr. Henry M. Hurd, Johns Hopkins Hospital, Baltimore, Md.; Dr. P. E. Truesdale, Truesdale Hospital, Fall River, Mass.

Report of Committee on Hospital Efficiency, Hospital Finances and Economics of Administration. Winford H. Smith, M.D., Bellevue and Allied Hospitals, New York City.

Report of Committee on Hospital Construction. H. E. Webster, Royal Victoria Hospital, Montreal, Que.

Report of Committee on Uniform Accounting. C. Irving Fisher, Presbyterian Hospital, New York City.

Question Box. Chairman: Dr. R. W. Bruce Smith, Parliament Building, Toronto, Ont.

MEMBERS PRESENT AT THE DINNER OF THE COUNTY SECRETARIES.

Second Annual Session, Hannibal, Mo., May 3, 1910.

Guest—Dr. Frederick R. Green, Assistant Secretary of the American Medical Association, Chicago.

Ashley, John, Bloomfield.
Bell, John M., St. Joseph.
Bridges, J. R., Kahoka.
Brummall, J. D., Salisbury.
Burke, Foster W., Laclede.
Cole, Paul F., Steffenville.
Crawford, H. S., Harrisonville.
DeVilbiss, Frank, Eugene.
Dillon, Marion, Fairfield.
Dorsett, Walter B., St. Louis.
Downing, T. J., New London.
Elam, W. T., St. Joseph.
Fassett, Chas. Wood, St. Joseph.
Fleming, C. R., Farmington.
Fleming, J. B., Aurora.
Goins, G. W., Breckenridge.
Hill, I. E., Hannibal.
Hull, E. R., Camden Point.
Hutton, W. S., Farnfelt.
Jurgens, H. J., Edina.
Loeb, Clarence, St. Louis.
Lutz, F. J., St. Louis.
McAlester, A. W., Jr., Kansas City.
McComb, J. A., Lebanon.
McConkey, C. M., Lathrop.
Madry, A. H., Aurora.
Murphy, Franklin E., Kansas City.
Oliver, Everett A., Richland.
Parrish, B. B., Kirksville.
Parrish, E. E., Memphis.
Patterson, W. R., Tipton.
Shelton, J. C., Chillicothe.
Strode, Robert C., Mexico.
Timberman, J. H., Marston.
Welch, J. C., Salem.
Williams, V. O., Nevada.
Wood, A. M., Lentner.

COUNTY SOCIETY NOTES

ATCHISON COUNTY MEDICAL SOCIETY.

Atchison County Medical Society met at Fairfax, July 7.

Dr. Suttle read a paper on "Gastro-Intestinal Catarrh in Children." Discussion was opened by Dr.

Taylor, followed by Drs. Hunter, Abbott, McMichael; Dr. Suttle closing. Cases were reported by Drs. Hunter, Abbott and Suttle.

The next meeting will be held at Fairfax October 6.—A. McMichael, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY.

The Cape Girardeau County Medical Society held its regular monthly meeting in Dr. Howard's office, June 13, seven members being present. The committee appointed to draft resolutions on the death of Dr. Wm. Kiehne, made its report, which was received and adopted unanimously and committee discharged.

For the discussion of the evening Dr. Porterfield made some interesting remarks on gall-stones. He was requested to write up the subject and send to the JOURNAL for publication.

Dr. Henderson reported two cases of cerebral hemorrhage and Dr. Hays reported one case. Dr. Hays also reported a case in which he had found the following conditions: Diabetes mellitus, enlarged liver, enlarged spleen which extended to crest of ileum, and ascites. After reviewing the different points, the society adjourned.—E. H. G. Wilson, M.D., Sec'y.

CASS COUNTY MEDICAL SOCIETY.

The Cass County Society met at Harrisonville, on June 25. The following members were present: Drs. Tout, Foster, Overholser, W. F. Chaffin, Triplett, H. A. Brierly, Fair, Farrow, Dodd, Jerard, Ramey, and Crawford. The scientific program was taken up as follows:

Nervous Dyspepsia, by Dr. H. A. Brierly; Report of Case of Chronic Interstitial Nephritis with Dilatation of Heart, by Dr. F. W. Foster; (Gross and Minute Pathology of Chronic Bright's Disease Will Be Demonstrated). The Country Physician and Surgery, by Dr. B. B. Tout; Bovine Tuberculosis (Specimen Exhibited), by C. L. Allen, V.S.; Quiz—Surgery of Pleura (Page 6 of Postgraduate Study), by S. H. Jerard; Presentation of patients; Report of Delegate to Missouri State Medical Association at Hannibal.

Dr. J. S. Triplett presented an interesting case of pseudohypertrophic muscular paralysis.

Every member took an active part in the discussion of the papers.

Dr. W. K. Wright made application for membership, and after a favorable report by the board of censors he was elected.

This was one of the best and most enthusiastic meetings of the society for some time. The program was especially interesting, and the attendance excellent.—H. S. Crawford, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

Greene County Medical Society met in regular session Friday, June 24.

Dr. N. F. Ferry read a carefully prepared and very instructive paper on "Some Anomalies in the Diagnosis of Abdominal Diseases." He reported several unique cases which helped to make the paper very instructive. The discussion was opened by Drs. Fulton and Bartlett, after which a majority of the members entered into the general discussion.

Dr. Wilbur Smith was elected a member of the Society.

The Society adjourned until the second Friday in September.—Thos. O. Klinger, M.D., Secretary.

MISSISSIPPI COUNTY MEDICAL SOCIETY.

The Mississippi County Medical Society met in regular session on June 13 at the office of Dr. H. L. Reid. The following members were present: Drs. W. S. Love and G. R. Wallace, of Bertrand; Drs. J. S. Davis and D. M. Hodges, of East Prairie; Drs. H. L. Reid, A. W. Chapman, John C. Boone, F. S. Vernon and W. P. Howle, of Charleston.

Dr. A. W. Chapman read an excellent paper on "Hemorrhoids." He desired the society to take up the treatment of this malady in the discussion, and therefore confined his paper to the history, pathology and etiology. The paper was well received and after a somewhat general discussion it appeared plain that the members were of the opinion that operation offered the most satisfactory treatment. No decided preferences were held for any particular operation.—John C. Boone, M.D., Secretary.

NEWTON COUNTY MEDICAL SOCIETY.

Newton County Medical Society met in the office of the Secretary, O. J. Sloan, June 14, in joint session with the surgeons of the Missouri and North Arkansas Railroad, and the following program rendered:

"Technic of Bandaging," by Dr. H. L. White, of Roads, Ark.

"The Railroad Surgeon's Relation to the Community and Railroads," by Dr. G. W. Harrison, Chester, Mo.

"Compound Fractures," by Dr. A. W. Benton, Neosho, Mo. Discussed by A. J. Vance, Harrison, Ark.; T. B. Bradford, Cotton Plant, Ark.; J. C. Grammar, Ark.; H. L. White, Rondo, Ark.; D. L. Weems, Neosho, Mo.; H. S. Bowers, Neosho, Mo.

"Surgical Notes of 1910," by Dr. E. P. Sloan, Bloomington, Ill. Discussed by A. J. Vance, of Harrison, Ark.; A. W. Benton, Neosho, Mo.

"The Emergency Bag: Arrangement and Contents," by Dr. J. S. Foster, Seligman, Mo.

"Traumatism of the Eye," by T. D. S. McCall, Neosho, Mo. Discussed by T. B. Bradford, Cotton Plant, Ark.; H. L. Routh, Belavia, Ark.

"Pellagra," by Dr. A. J. Vance, Harrison, Ark. Discussed by C. W. Craffin, Moro, Ark.; O. J. Sloan, Neosho, Mo.; Snipes, of Ark.

"Minor Injuries and their Consequences," by Dr. T. B. Bradford, Cotton Plant, Ark. Discussed by H. S. Bowers, Neosho, Mo.; J. C. Grammar, Ark.; A. J. Vance, Harrison, Ark., and Dr. L. Weems, Neosho, Mo.—O. J. Sloan, M.D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY.

Platte County Medical Society assembled June 1, at Camden Point in a picnic meeting for the doctors and their families. Those present were: Dr. Herrell, of Kentucky; Dr. A. S. J. Smith and wife; Dr. J. M. Hale, wife and children; Dr. M. H. Moore; Dr. Spence Redman, wife and son; Dr. H. M. Clark and wife; Dr. F. M. Shafer; Dr. A. S. Herndon, wife and son; Dr. E. R. Hull, wife and daughter; also quite a representative attendance of friends. Lunch was served for all present and, to say the least, we all enjoyed well the social outing of the day.

PROGRAM.

The Doctor's Wife, by Mrs. H. M. Clark,
Platte City.

Reading, by Miss Desda Hull.

Solo, by Miss Louella Miller.

Violin Solos, by Mrs. A. S. J. Smith.

Meeting of July 6.

At this meeting the following members were present:

Dr. Harrel, of Kentucky, a welcome visitor; Dr. J. M. Hale, Dearborn, Mo.; Dr. Spence Redman, Platte City, Mo.; Dr. H. M. Clark, Platte City, Mo.; President G. C. Coffey, M.D., Hampton, Mo.; Dr. E. R. Hull, Secretary, Camden Point, Mo. Clinical cases of interest were presented by Drs. Spence Redman and E. R. Hull. Dr. S. P. Ford, Parkville, was received as a member of the society. A paper entitled "Race Suicide; What the Doctor can do to Prevent It," was very ably presented and aroused an interesting discussion by all those present. There being no further business the society adjourned until the next regular meeting, August 3, at Platte City. The following program has been arranged for the meeting:

Hemorrhoids, Dr. A. H. Patterson, Edgerton; discussion opened by G. C. Coffey, Hampton. Peritonitis, Dr. Abe Shafer, Edgerton; discussion opened by Dr. J. W. Shultz, Weston. The Advantage of Racial Operation Over the Truss in Inguinal Hernia, Dr. S. Redman, Platte City; discussion opened by Dr. J. J. Carter, Weston.

This meeting leaves us with only one registered physician in Platte County who is not a member of The Platte County Medical Society. We cordially solicit this friend into the fold.—E. R. Hull, M.D., Secretary.

BOOK REVIEWS

THE SEXUAL LIFE OF WOMAN in its Physiological, Pathological and Hygienic Aspects. By E. Heinrich Kisch, M.D., Professor of the German Medical Faculty of the University of Prague; Physician to the Hospital and Spa of Marienbad; Member of the Board of Health, Etc. Only authorized translation into the English Language from the German by M. Eden Paul, M.D. With 97 Illustrations in the Text. New York: Rebman Company, 1123 Broadway. Price, cloth, \$5 net.

The author has given a very considerable portion of his time to the study and observation of the influences of the reproductive organs on the general health of woman. "In this work he considers the sexual life of woman, "in relation to the female genital organs, and in relation to the feminine organism as a whole; in relation both to the physical and to the mental development of the individual; and in relation alike to the state of health and to the processes of disease. Thus from the standpoint of clinical investigation and of practical experience the book will be a contribution toward the solution of the sexual problem, nowadays recognized as one of supreme importance."

The subject is treated in an exhaustive manner, and all the phases of the life of woman as it is influenced in her sexually active period are discussed. To the numerous examples drawn from the works of others the author has added to our fund of information on this important subject by recording cases from his own rich experience.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

SEPTEMBER, 1910

Number 3

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION COMMITTEE (M. B. CLOPTON, M.D., Chairman
A. W. McALESTER, Jr., M.D.
M. C. SHELTON, M.D.)

ORIGINAL ARTICLES

SIMPLE BURSTITIS *

JOHN F. BINNIE, A.M., C.M.
KANSAS CITY, MO.

Students of medicine spend much time in the study of anatomy. They learn, and generally promptly forget, the origin and insertion of all the muscles; the course and branches of the principal arteries and nerves; the principal bones, and something about the principal joints. It is, of course, essential to know much about the structures named, but it is unfortunate that time does not seem to permit any detailed study of the lymphatics, which are, from the standpoint of operative surgery, of more importance than any but the greatest arteries. In removing a cancer it matters little how many arteries (with two or three exceptions) we divide; it matters greatly how thoroughly we dissect away the lymphatics which drain the diseased area. Similarly, time does not permit the students to realize that any bursæ exist except the patellar and perhaps one or two more. Never having had any knowledge of bursæ ground into him in his student days, the practitioner forgets to take bursitis into consideration when hunting for the cause of some obscure lameness and disability, and so is liable to do his patient and himself grievous injustice. Bursitis in some localities is so obvious and so well known to the laity that error is practically impossible, *e. g.*, in the case of housemaid's knee. The object of the present paper is to draw attention to some of the obscurer cases of bursitis where error in diagnosis is common and important.

Bursæ are clefts or pouches in the tissues; are lined by a smooth, fibrous tissue membrane, with or without endothelium; contain a small quantity of synovial-like fluid, and act as a sort of pad or

fender between various structures. They are exceedingly numerous and may be congenital or acquired.

According to Langemak trauma, especially continued or repeated trauma, causes an arterial hyperemia which leads to absorption of oil from and hyperplasia of the fibrous elements of the fatty tissues. After a time collagenous (gelatinous) tissue collects and all the protoplasmic tissues, especially the vessels degenerate, even the elastic fibers becoming unrecognizable. The consequence is an induration consisting of collagen and a few cells. The center of the mass is almost free from blood vessels. The insoluble collagen changes into a soluble fibrinoid and the bursa is complete as soon as the fibrinoid becomes liquid. Such is supposed to be the origin of acquired bursæ.

Congenital bursæ are formed in the same manner as joints, before the muscles have acquired the power of contraction. Congenital bursæ are provided, like joints, with an epithelial, or, better, an endothelial lining. Bursæ, whether congenital or acquired, are very subject to inflammation, both traumatic, *i. e.*, non-infected and infected. It is with the non-infected—traumatic or simple bursitis—that we are dealing in this paper.

As a result of one or several injuries the tissues immediately around the bursal cavity and forming its walls become inflamed. There is a great effusion into the bursal sac, which becomes much distended as a consequence. If the bursa is superficial the skin over it becomes stretched and red. Pain is a marked feature and, according to the location of the bursa, disability is most noticeable.

Example: An athletic student, aged 18, gave a history of suffering from a sprain of the right tendo Achilles every spring when training for track work; recovery usually in four days. Was seen by me during the Christmas holidays suffering from pain about the right heel. He said that fifteen days before I saw him he strained his tendo Achilles when stepping off a street car, but that instead of improving in the usual four days the symptoms got progressively worse. Examination revealed no elevation of temperature.

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

Walking was impossible. Much pain on dorsal flexion of foot. Swelling, heat and exquisite tenderness superficial to the tendo Achilles just above the os calcis. The diagnosis was of course clear, viz., bursitis situated in an acquired bursa superficial to the tendon. Usually bursitis in this region affects the post-calcaneal bursa under the tendon, and is known as Albert's disease.

The treatment of such an acute bursitis consists in rest, the foot being held in a position of equinus. Usually complete recovery ensues in a few days, but recurrence is not uncommon owing to repetition of traumata similar to that responsible for the original attack. Each recurrence leaves the bursa more vulnerable and makes a chronic bursitis probable. Acute traumatic bursitis of the prepatellar bursa is very common, but owing to its position is *not* nearly so disabling as Albert's disease. If strapping is applied to the knee, so as to support and exercise slight pressure on the bursa, the patient can usually go about with comfort and recovery is prompt. Here it is usually easy to avoid repetition of the original trauma.

If the traumata are repeated, chronic bursitis becomes established. It is not uncommon to have a patient give the history of having sprained his knee a few weeks before; rest and various liniments have been used and recovery has taken place, except that full extension causes pain and, if persisted in, causes a return of many of the original symptoms. On examination one finds a tender spot to the inner side of the knee posteriorly, and corresponding to this tender spot there is an elastic fulness or swelling extending into the depth of the popliteal space. Unless one remembers the existence of a large bursa under the semimembranosus one is liable to be puzzled or to make an error in diagnosis and prognosis. All that is usually requisite to obtain complete recovery is rest, and the necessary amount is obtainable with the minimum of inconvenience to the patient by heightening the heel of the shoe about three-quarters of an inch and so preventing full extension of the knee in walking.

Codman has made a careful study of a form of bursitis which is often mistaken for disease of the shoulder point. When the arm is hanging down alongside the chest a bursa is present beneath the deltoid and resting on the supraspinatus muscle and humerus; part of this bursa lies under the acromion process. If the arm is abducted the bursa slides upward until all of it lies under the acromion and none under the deltoid. The amount of motion to which the bursa is normally subject spells much disability when it is the seat of inflammation. After an injury to the shoulder the patient complains of pain down the outer side of the arm, especially at the insertion of the deltoid. Abduction causes pain, and when a certain degree of abduction is attained there is involuntary muscular spasm, which locks the shoulder

joint so that the scapula and humerus move together, thus preventing motion or disturbance of the bursa. There is tenderness just beneath the acromion process external to the bicipital groove when the arm is hanging down, but when the arm is abducted Dawbarn has found this point of tenderness absent, because the bursa is now under the acromion and out of reach of the palpating finger. Rest with the arm abducted enough to relax the deltoid and short rotators gives a good result, unless the disease has become chronic. Codman's studies have been of great value in the interpretation of many disabling conditions around the shoulder.

Up to now we have considered only the acute variety of traumatic bursitis, but the acute inflammation may become chronic or the inflammation may be chronic from its inception. The walls of the bursa thicken, become irregular, and may form villi which protrude into its lumen. The lumen is liable to be multilocular and varies much in size. The contents are serous, or mucoserous fluid often containing oryzoid bodies. Evidences of hemorrhage are often present. Frequently the walls of the bursa adhere so that the lumen is diminished or even obliterated. The symptoms are less severe but may be disabling.

Example: Mrs. X., aged 46. On 1888 hit her left hip on a sharp, hard angle, causing pain for a short time. There was apparently complete recovery. In the fall of the same year awoke one morning to find herself very lame, could not take a step without much suffering. The hip was hot and swollen. Under local treatment the heat and swelling disappeared, but the lameness recurred at intervals. Until 1892 there was a dull ache in the hip and almost constant lameness, especially in winter, although it was not confined to cold weather.

In 1892 a diagnosis of exostosis from periostitis was made by a most brilliant eastern surgeon. From 1892 to 1899 the trouble came and went; it would begin slowly, increase for several days and end suddenly. She might be lame for six weeks, and on the first morning of the seventh she might get up feeling entirely well. From 1899 to 1907 there seemed to be no distinct attacks, although the leg felt weak and she "favored it." In December, 1907, the lameness came back, worse than ever, about a month after a slight trauma to the hip. Local treatment (rest) gave relief, but walking or housework always led to recurrence.

In October, 1909, the patient consulted Dr. M. T. Sudler and myself. We found an elastic, deep-seated swelling over the great trochanter on the left side, moderately tender. There were no signs of arthritis elicited. Skiagraphy showed no exostosis, but a flattening of the outer surface of the trochanter major. Diagnosis, bursitis of the gluteal bursa. Operation was performed on Oct. 4, 1909. Incision over the great trochanter. Splitting of the gluteus maximus in the direction of its fibers. Longitudinal division of the tendon of the gluteus (part of this tendon was thickened). Exposure and removal of a small bursa the size of an almond lying in a slight depression in the outer face of the great trochanter. The bursal wall was thick and pulpy; the contents consisted of thick, clear, glairy fluid. The tissues about the bursa, including part of the tendon of the gluteus medius, were thickened and cartilaginous. These altered tis-

sues were excised. A shell of bone was chiselled from the surface of the great trochanter, to obliterate the depression existing there and so avoid leaving any dead spaces. Recovery was uneventful and the patient is now free from all lameness.

I have reported this case rather fully because its history lasted such a long time and because such a simple, trifling ailment caused so much real disability.

A chronic bursitis may recover when rest is given, but the gross anatomic changes in the walls of the bursa and in its surroundings are usually so great and so well established that more active treatment is often necessary. Various irritating or alterative liquids or emulsions have been injected into bursæ and have often given good results, but such treatment must be used with great caution, as bursæ very frequently communicate with joints and we may produce a dangerous arthritis. Excision is the treatment of choice in chronic bursitis; it not only gives the best prospect of a prompt and permanent cure of the simple, non-infective variety of the disease which we have been discussing, but if the lesion is due to tuberculosis or such like infection it also is the best possible method of treatment.

**THE OBLIGATION OF PARENTS AND THE STATE
TO PROTECT THE RISING GENERATION
FROM INFECTIONS OF PREVALENT
SOCIAL DISEASES ***

M. P. OVERHOLSER, M.D.
HARRISONVILLE, MO.

On June 10, 1908, at Atlantic City, N. J., at the meeting of the American Medical Association, a resolution was introduced and passed by the Section on Hygiene and Sanitary Science creating what is called a Public Health Education Committee. In accordance with this resolution a meeting was held in New York City on July 20, 1909, for the purpose of adopting a systematic plan of work for a campaign of public health education throughout the states. This work was placed in charge of what is called a central committee composed of about ten physicians, who are located in various parts of the United States. For the purpose of organization groups of states were placed under the supervision of each member of this committee, so that not only every state in the union was under the direction or supervision of this committee, but also Alaska, Hawaiian and Philippine Islands, and the Panama Canal Zone. The direct administration of this public health work was then subdivided and carried on by state secretaries in the various states, and by county chairmen in the many counties where this work has been taken up.

During the past year this committee has succeeded in getting in touch with many state, national and international bodies, and are now rapidly obtaining their coöperation in the work they have undertaken. At the Quinquennial Congress of International Women, which met in Toronto, Canada, in June, 1908, Dr. R. S. Morton of New York City, chairman of our central committee, delivered a lengthy address on "A Higher Standard of Morality," which created marked interest among the most prominent social and reform leaders of the world.

As a result of the work done by this committee during the past year we find that such organizations as the National Purity Congress, the American Society of Sanitary and Moral Prophylaxis, the National and State Confederation of Charities, National and State Confederation of Women's Clubs, the Playground Association of America, and many other organizations, have all joined hands in an open fight against the great social evils which have been rapidly invading our homes and scattering their seeds of disease and death among thousands of innocent, helpless women and children.

As evidence of the importance of the work undertaken by the Public Health Education Committee, the following societies have been organized during the past year for the purpose of educating the public along the lines of social hygiene: Pennsylvania Society for the Prevention of Social Disease, the Chicago Society of Social Hygiene, the Social Hygiene Committee of the Chicago Women's Club, the Indiana Society of Social Hygiene, Portland (Ore.) Society of Social Hygiene, Lehigh Branch of the Pennsylvania Society for the Prevention of Social Disease, West Virginia Society of Social Hygiene, Spokane Society of Social and Moral Hygiene, with a number of other organizations which are being rapidly added to the list.

This outlines, in a nutshell, the plan adopted by the American Medical Association through its Committee on Public Health Education for a vigorous warfare against the infectious social scourges of the land. In justice, however, to all parties concerned in the prime movement of this great undertaking, we should state that an international congress for the study and prevention of diseases growing out of the social evil, in which every civilized country in the world was represented, was held in Brussels, Holland, in 1902. The deliberations of this international body crystallized into the conviction that the preventive measures hitherto employed in the control of social diseases were insufficient, and that the whole question should be studied anew from a broader standpoint and with special reference to the social conditions involved in the causation of these diseases. Especial recognition was given to the fact that moral as well as medical issues were

* Read at an open meeting of Cass County Medical Society, Harrisonville, Aug. 4, 1910.

involved in the problem. This congress recommended that societies of sanitary and moral prophylaxis be organized in all countries for the study of the best means of every order, moral, social, administrative, legislative, as well as medical, to be employed in the prevention of these diseases. Such national societies have been organized in America, Germany, France, Holland, and other European countries. In Germany this society numbers nearly 5,000 in membership. In France about 1,000. These societies include in their membership members of state and other high public functionaries, representatives of the bar and church, and men and women engaged in social work, besides practically all leading members of the medical profession.

Thus, eighteen years of careful investigation and close study of our social conditions by the originators of this movement, as to the best methods of combating these social scourges, has given us a plan of work which has been tried in other countries and which has been adopted in the United States during the past year. So that this work as now pursued in many of our states to prevent the most prevalent forms of social infections, is not a sudden, spontaneous outburst of fanaticism, but a plan of work which has come to stay and which, sooner or later, must pervade every community in our land. It is a method which will tend to a higher degree of social purity, a higher standard of morality, and will help to keep in check the widespread social infections so common in all countries, and which are to-day doing vastly more injury to the health of our people than the public have ever realized.

The object of sanitary, social and moral hygiene associations is to touch the conscience of the public to a realizing sense of the inhumanity involved in denying protection to the innocent, helpless members of society who are powerless to protect themselves. "The chief difficulty encountered heretofore in the enlightenment of the public on some of our greatest social evils has been the social sentiment which, masqueraded under the guise of modesty and propriety, has resolutely refused to recognize the existence and widespread prevalence of a class of social diseases which social economists tell us threaten the safety of our nation and invite the deterioration and even the destruction of our national health." With the rapid and fearful inroads of these diseases in the homes of our land, with the sickness, suffering and deaths which accurate statistics now show are due to these infections, the day is passed when these subjects are "too delicate" to discuss with the public. The time has come when a breach must be made in the walls of this conventional prejudice, when these barriers must be thrown down and when the truth must be published. Our "moral susceptibilities" must no longer hide the real facts of our true social con-

ditions. With unrevealed conditions which have existed for years the medical profession no longer bows down to these idols of conventional prejudice and false modesty, for the profession has learned that the traditional customs on matters of such vital interest to our people have been wrong. The direful consequences of this secrecy has led the profession of medicine to bring the discussion of these diseases and their dangers to society into the open, to expose them to the public, "to pronounce their names, and this without shocking the sensibilities of a public audience." "Women, modest, refined, the most womanly of women, in their desire for knowledge of the truth of these social scourges, are not offended by our plainness of speech; when these matters are presented in their true light their feeling is not one of outraged modesty, but of indignation due to the fact that matters which so materially concern their health and the health and lives of their children, should have been so long concealed from them by the medical profession." Medical men have for years known that there are grave social conditions which affect tragically all classes of society which are fostered by involuntary ignorance on the one hand and on the other by those whose false modesty leads them deliberately to close the eyes to the truth.

"In medicine the watchword of this scientific age is prevention of disease. Of all the problems for consideration one of the most important and the most difficult is the prevention of a class of diseases which are most intimately connected with the sources of life. These diseases are world-wide diseases and have been a plague to humanity from the earliest times. More has been learned about them, however, in the last thirty years than in all the thousands of years preceding, and what has been learned has enormously emphasized their importance as social evils." In the public eye these diseases have been looked upon as secret diseases, not to be mentioned or to be spoken of openly to society at large. Thirty years ago, when Dr. Valentine read a paper on venereal diseases before the American Medical Association, one man said that this was a Christian country and the Association was a Christian association, and that no such vile thing as venereal disease should come before the Christian American Medical Association. Only nine years ago a paper was read on the "Limitation of Venereal Diseases" before the American Medical Association which was refused publication in its official journal. But times have changed. The necessity for publication of these social evils has become imperative. To-day medical organizations, civic associations, women's confederations, and women's clubs are studying these unpleasant facts, looking them squarely in the face, and by their combined efforts are seeking to right what is wrong. The wisest of our

social and reform workers have realized the vital necessity of going to the root of evils in order to eradicate them. A conservative estimate by various statistics and by all available records has proven that the amount of money spent for licentiousness in some of our large cities amounts to nearly \$500,000 a week. From these great centers social infections spread. The modern railroad facilities, the trolley, the good roads, cheap transportation, have made communication easy between the city and the country. With a constant going and coming of our people, and especially our young men from smaller cities, from country towns and villages, and from rural districts, these infections are being constantly contracted and carried to our home communities and spread among innocent women and children.

Of these social scourges the two diseases which play the saddest havoc among our people are syphilis and gonorrhea. It may be a rather startling fact to the laity, but it is nevertheless true that from 75 per cent. to 80 per cent. of all surgical operations done in the hospitals of our land to-day on innocent women are for the relief of disease of the reproductive organs, caused by gonorrheal infection. Medical observation indicates that 80 per cent. of males in our large cities, sometime between the ages of 18 and 30 years, contract gonorrhea. It is asserted that from 8 to 18 per cent. of our American young men contract the syphilitic infection. In the *Critic and Guide* is the story of Rose and Edward. There is nothing in life quite so tragic as this story, yet there are thousands of similar incidents in our land every year which are never revealed to the public for reasons as well known to the laity as to us. "Rose was 22, bright, cheerful and joyous of the future. It was her happiest day, for she had just married Ed, a rising young lawyer of 28. Ed was a kind-hearted gentleman—a real gentleman in the finest sense of the word. Just the man for Rose. They were married in October. They expected to stay away three months on their honeymoon, but they returned after about three weeks. Rose was not feeling well. Hotel life did not seem to agree with her. She looked haggard and fagged out. Rest did not seem to do her any good. She began to fail rapidly and was suddenly seized with severe pain. The physician announced that in order to save her life an immediate operation was necessary. On January 5, at midnight, the bride was removed to a private hospital. The operation was a success, but you would not know Rose now. She aged ten years in ten weeks. She is making no plans; she has no hopes; she is dreaming no dreams. Never again will she be the happy Rose that she was before she became a wife. Never will her home be gladdened by the noise, romp and laughter of little children. A confidential talk was had by the physician with

Mr. Edward. Ed couldn't remember at first, but finally admitted under persistent questioning that he had suffered from a little 'strain' about two years before. It was mild. It hadn't bothered him much. He had gone to a physician who 'fixed him up in a couple of weeks.' Edward was requested to submit to an examination. The examination was made and showed the presence of the fatal gonococcus. The despair of Mr. Edward when told that he was the unwitting cause of his wife's ruin can be better imagined than described."

Of the 60,000 blind people of the United States, Dr. Charles S. Bull, who is good authority, says 20,000 of this number have never seen the light of day because of gonorrheal ophthalmia. It costs our nation \$7,000,000 annually to take care of the blind who have lost their eyesight from this venereal infection. Of the blind beggars on our street corners who, with rolling white eyeballs, clatter a tin cup and beseech pennies from the passers-by, or who, after a song, or the strains of music from a violin, music-box or accordion, gather up a few pennies, nickels and dimes to keep soul and body together, one out of every three or four have been blind from birth as a result of gonorrheal ophthalmia, due in a majority of cases to an infection transmitted to an innocent mother from a diseased father.

In the great efforts which are now being made to stay the great white plague, consumption, shall this great black plague be overlooked and ignored, and be left to continue taking the sight from the children of our land, to make invalids of our purest women, to fill our insane asylums with helpless degenerates and our hospitals with epileptics and paralytics? From 500,000 to 800,000 of our people suffer from the infection of the white plague, consumption, but the black plague—venereal disease—is said to claim from 2,000,000 to 5,000,000 or more of our people as its victims. Dr. Bellfield of Chicago, a specialist in genito-urinary diseases, who is widely known and one of the great leaders in this work of social reform, says that one-sixth of the total population of the United States is syphilitic.

The cost of venereal disease in the British army during 1896, 1897 and 1898 averaged \$2,-244,750 for each year, with a total loss of 1,738,622 of service per annum. The loss of service to our United States Navy in 1903 on account of its men being confined in hospitals because of venereal disease was 114,371 days, which is equivalent in fighting strength to the loss of a second-class battleship every year. One-eighth of the total number of men of the United States Navy were in the hospital for venereal disease in 1903, and this condition has been as bad or worse ever since. This is an explanation as to army inefficiency of interest to the taxpayer. From a memorandum issued by the War Depart-

ment, Jan. 26, 1909, we note the following statement: "Since the Spanish-American War there has been a steady increase in this class of diseases, so that the admission rate at the hospitals, which was 84.59 per 1,000 in 1897, has now reached the enormous figure of 196.62 per 1,000."

Many of our confirmed criminals, defectives and hopeless degenerates are the offspring of parents whose bodies have been polluted with the diseased germs of venereal infection. Parenthood and race culture are certainly important subjects for consideration by the American people at the present time. The urgent necessity of legitimate efforts which will tend toward the extinction of hereditary disease and a cessation of the continued rapid propagation of defectives and degenerates is well shown by the "Jukes family" of New York City. Two rather wild sons of an early Dutch settler in New York State married two sisters. Of their descendants the careers of 700 have been traced. Two hundred and eighty of these were public paupers, 140 were criminals, and a very large number were depraved, diseased and insane. In seventy-five years that family cost the people of the United States \$1,308,000. Intelligent people everywhere should know that the mentally defective classes—natural criminals, imbeciles, insane, epileptics—have multiplied in the last forty years more than three times as fast as has the total population. Realizing the gravity of this situation, a few years ago the State of Indiana legalized a simple and painless method of sterilizing confirmed criminals of that state which causes no impairment of sexuality, and since the passage of this law over 800 confirmed criminals have been sterilized in the State of Indiana. Oregon has recently enacted a duplicate law and similar bills have been introduced in at least two other state legislatures. It is held by many of our leaders in social and reform work that the financial, moral and social conditions of our nation would be obviously improved by a general adoption of this measure, which imposes no cruelty or hardship upon these defectives, and as a kindness to the yet unbegotten offspring of these hopeless degenerates, it is held that the motives which prompt this method of keeping in check the rapid propagation of a race of degenerates can be no other than those which are characterized by a true spirit of philanthropy.

In the short time allotted to us for this paper we cannot consider at any length the subject of eugenics which has for its object the prevention of the birth of the unfit and undesirable and the improvement of the race by furthering the productivity of the fit and desirable by healthful rearing of children. However, we will state that there is now in existence in England a eugenic society. In this country there are committees on eugenics for the purpose of investigation, education and legislation. It seems probable that

eugenic societies, committees, and eugenic publications will soon multiply, and it is not at all improbable that wise philanthropists, seeing that millions of dollars now used for caring for the weak and defective, help only one generation, will soon be induced to provide large sums for eugenics with the idea of preventing the propagation of the insane, the inebriate and the criminal. To-day we pride ourselves upon the number and the size of our colossal institutions in which millions of dollars have been placed for the care of these unfortunate victims, but how woefully negligent we have been of our duty in the past in seeking to eradicate the great cause which is constantly, year after year, filling these institutions with criminals, idiots, imbeciles, demented paralytics and degenerates of all kinds. Helen Keller, who has had good reason to investigate this subject, says: "When we rightly understand our bodies and our responsibilities toward the unborn generations, the institutions for defectives which are now our pride will become terrible monuments to our ignorance and the needless misery we once endured." The fact that venereal diseases are the most potent factors in the causation of blindness, idiocy, insanity, paralysis, locomotor ataxia and other incapacitating and incurable diseases, imposes a burden upon us which can no longer be well borne. "While millions of dollars are appropriated annually to support these degenerates, the factors which produce them go unchallenged."

We have not the time to elaborate on the inconsistencies of the American people in dealing with this great question, nor is it necessary to depict to you still further the untold social calamities which are truthfully charged to these infections. The great question which confronts us at this time is how to remedy these deplorable social conditions, which have been largely hidden from the public for so many years. The plan proposed is the plan which has been adopted by many of our states during the past year—by California, Connecticut, District of Columbia, Illinois, Iowa, Massachusetts, Minnesota, New York, New Jersey, Ohio, Pennsylvania, Washington—and other states which have reported a beginning of this work at the close of the first year's campaign of the committee on Public Health Education. Physicians and scientists who have made a study of this difficult problem for a number of years now stand almost as one in the opinion that when a broad system of popular education in sexology, or social hygiene, is established, the first important step will be taken in an intelligent public warfare against these venereal scourges. "The old-fashioned moralist's view, that venereal affliction is the just punishment of those who violate the seventh commandment, will not stand the light of twentieth century analysis. The weakness of this view is that the evil worked is

not confined to the transgressor. The infection is often transmitted to the innocent bride, innocent wife, and child." A great number of still-born children, a heavy percentage of premature deaths of children, early apoplexy, and sudden death long after the disease is supposed to have been cured, and where it has never been suspected, are now found to be due to syphilitic infection. These venereal diseases are simply treacherous, insidious, creeping, social assassins. They spare neither virtue nor innocence, for the virtuous and innocent are often the victims of these dreadful plagues. Shall we, who know the truth, who see innocent members of society stricken with these diseases, continue to ignore their presence in our midst and remain silent on the ground that it would shock and offend the "moral susceptibilities" of a community to expose our true social conditions? From 250,000 to 300,000 persons residing in or near our large cities become initially infected every year with the poisons of these diseases, as deadly in eventful race effects as any scourge known to mankind; and yet it is quietly whispered by many that nothing should be said or done, and that these subjects are "too delicate" to discuss with the public. Think of the unborn generations that must bear the stigmata, the physical ills, the deterioration, mentally, physically and morally, as a result of such tender "moral susceptibilities." What an enormous bill of damages is to be laid at the door of "prudery," of "false modesty," of "social cowardice," by those who hold that we must not mix morals with medicine and that the teaching of sexual hygiene is "too delicate" a subject to be taught to our sons and our daughters.

"What then is the hope in social prevention of these plagues? It is this: that we train our young men to higher ideals of women and marriage; that we remove the ideas of false modesty and prudery in regard to sexual matters existing in the minds of our young men and young women; that we protect the innocent; that we guard the unwary; that we have charity for the unfortunate, alms and pity for the diseased and suffering; that we educate instead of legislate; that we cure instead of scold; that we lead by truth and not drive by force; and that sympathy and not scorn come from the hearts of those who would lend a helping hand in the advancement of this great work." And when the time shall come when our "Anglo-Saxon sense of prudery" and our present ideas of civilization shall not prevent general discussion of these matters; when papers similar to this, with even a more open and clearer exposition of the true facts, may be given to the public without criticism from those who are ignorant of the true facts, or by those who would hide these social wrongs under a cloak of so-called charity; when a general knowledge of the

far-reaching disasters of venereal disease can be inculcated into the minds of the laity; then, and not until then, will there be any relief, any suppression, any let-up to the category of venereal tragedies. Legislation can never control the ungovernable, polygamous proclivities of a large part of the race of mankind. "The organic laws of nature are so fixed that they cannot be controlled by constitutional and statutory laws of man. The law of sexual instinct is an immutable, eternal physiological law. To attempt to keep this normal instinct within moral and legal bounds by statutory laws is a practical impossibility. Morality or immorality is the voluntary choice of man. If he chooses to transgress the moral and physical laws which govern his being, the penalty awaits him. In the Divine plan of our Creator these venereal poisons are intended as potent instruments in the law of evolution, created by nature as a protective force, as a warning to defend the laws of sexual function from transgression or perversion of its principles. They act by aiding the fit to survive and by destroying or afflicting the unfit or ignorant. But what an enormous penalty our people are paying, and how many innocent ones are suffering for the transgression of the Divine laws of sexual function. *Public health is paying the price.*"

In the evolution of mankind, if we would seek to perpetuate a race of moral people with sound bodies and sound minds, the time has surely come when we must awaken to the danger which threatens our nation if this widespread transgression of the natural laws of sexual function is not checked. "Education is our only hope. This must be our creed and our watchword. Education on broad and open lines alone can lead us in a path of safety. Science alone can touch our reason, can ennoble our sentiment, can modify our emotions, can quell our passions, can remove us from the blight and bane of this social tragedy and make us noble, make us good and make us free." A young man said, "if my father had given me ten minutes of sound advice and warning I should have been saved years of sickness and suffering. As it was, I knew nothing. With me it was a question of guessing. I kept on guessing until I found out by bitter experience."

Herbert W. Gates, secretary of the Young Men's Christian Association, Chicago, who has had the best opportunities for studying the lives of young men, says: "If I were obliged to answer the question, 'What do our boys and girls most need to have added to their education?' I think I would have to reply: 'More intelligent training in the mysteries and physical life of sexual functions.'" Since the young man must know his sex nature some time, which is the better for him—the wholesome and noble truths of science

and morality or the misleading, degrading, curb-stone information which to-day often constitutes his sole knowledge of these subjects? What kind of information is designed to strengthen a young man in moral resolution, to help him in a determination to remain pure in heart and pure in body, to guard him between the ages of 18 and 20 years, when the will is unstable, and during which period many contaminations are incurred? Youth is the psychologic time for suggestion, the plastic period of mental development for the making of lasting impressions which, when crystallized into definite conviction, constitute the attitude of the mind, governing the conduct and forming the character of the individual. It is an established fact that a large number of contaminations among young men are the result of sheer curiosity. Without a knowledge as to the seriousness and universality of prostitutional disease, thousands of young men fall into the venereal trap practically without warning, and thus become infected with poisons which may cause lifelong anguish. Ignorance is always a curse and knowledge a blessing.

For the youths of our land the presentation of these necessary truths is a work of the highest moral character, for such knowledge will have the effect of equipping young men with stamina to resist the coercive invitations to visit the brothel. With the great lack of knowledge on these important subjects and without a warning to our youths of the dangers which lie in wait for them, a young man of to-day who will not go "down the line" is frequently derided by his fellows as a "mamma boy," "baby," "molly-coddle," or "sissy," and in spite of his instinctive feelings that he should remain away from the courtesan, he often fails to have at his command effective, convincing arguments against these coercive invitations. Thus many a young man has been compelled to pay the penalty of disease and suffering as a result of a short-sighted policy of ours which will not arm him with a cuirass of knowledge sufficient to resist the gibes and sneers of reckless companions. The young man of to-day should be so fortified by a knowledge of the physical dangers of sexual contamination that he could make his enticer tremble with fear and shame who would dare ask him to pollute his body with the disease germs of debauchery.

This knowledge, this wholesome information, is being distributed to young men in many of our large cities, in smaller towns and villages, and in rural districts throughout our states. The Chicago Society of Social Hygiene distributed to parents last year 5,000 copies of a pamphlet on the subject of the "General Need for Education in Matters of Sex." In ten months over 300,000 circulars have been supplied by this society to meet the demands of over 600 colleges, universities, Young Men's Christian Associations, as well

as numerous business houses, railway officials, boards of health, clergymen, physicians, and other distributors. "Education Against Venereal Disease a Need of the State," "Protection of Wives and Children from Venereal Disease," "Sexual Hygiene for Young Men," were some of the subjects considered in these circulars. The committee on venereal prophylaxis of the Washington State Medical Society has issued and distributed at their own expense thousands of pamphlets, which have been distributed most largely throughout that state. And we should mention here that the Washington State Medical Society was one of the first organizations in the United States to take up this plan of work, which it did some years ago, and the report of the results of their work is highly encouraging. The Pennsylvania Society for the Prevention of Social Diseases has placed in the hands of employees of department stores and factories in cities of the state, educational literature with regard to the danger from and the means of prevention of venereal disease. The Indiana State Board of Health and the Indiana Society of Social Hygiene have done excellent work along these lines, and the movement is spreading all over the United States. Presidents of universities, academies, state boards of health, business establishments, railway associations, and many organizations of all kinds, are sending orders for these pamphlets, circulars, leaflets, and other available literature, for distribution.

The Chicago Society of Social Hygiene has received many requests like the following: From the Lehigh University, South Bethlehem, Pa.: "We have used to great advantage your leaflets on sexual hygiene for young men. Please send me 1,000 additional copies by express." Tulane University of Louisiana, New Orleans: "Your leaflets are most excellent and I shall thank you to send me 1,000 additional copies at your convenience." Yates School, Lancaster, Pa.: "Good luck and God speed. It is the most important thing that can be done for the rising generation." University of Vermont, Burlington: "We hear excellent reports from some eastern universities of your circulars on social hygiene. May we have some for distribution among 500 students? I am amazed at the need of such literature as yours. Why don't fathers and mothers do their duty?" Johnstown, Pa.: "Your circulars are splendid. I can judiciously use thousands of them. Kindly send me 1,000 of each." City of Mexico, Mexico: "Your circulars are most excellent. I assure you they will find a fruitful field in this city of bitter experiences." (They have been translated into Spanish.) Honolulu, Hawaii: "Enclosed find postoffice money order to cover cost of 2,000 copies of your leaflets. They are required by the Civic Federation of Honolulu for distribution." (Have been translated into the Hawaiian language by a missionary.) The

Cigar Makers' International Union, the National Purity Federation, the New England Watch and Ward Society and many other organizations and institutions are calling for wholesome instruction in sexual hygiene. Lectures and booklets on "Social Purity," "The Young Man's Problem," "The Boys' Venereal Peril," "The Social Evil," "How to Instruct Children Regarding the Origin of Sex," "How My Uncle, the Doctor, Instructed Me in Matters of Sex," "What a Young Man Should Know," "What a Young Woman Should Know." These, with other booklets, leaflets, pamphlets, circulars, reprints and books, furnish much valuable information along these lines and have aroused thinking people to a sense of their duty.

The new Council on Health and Public Instruction of the American Medical Association, which was organized less than four weeks ago, on July 8, 1910, is now preparing to print and to distribute literature on preventive medicine and social hygiene which will no doubt furnish us with the choicest articles for parents and our young men and young women, giving them this much-needed instruction in a scientific and practical way. It is the duty of each state to do this work for its rising generation, for the returns in diminishing the inmates of our public institutions, who are now charges on the state, will far exceed the expenditure necessary for this public health education, to say nothing of the good which can be done from a humanitarian standpoint in preventing sickness and suffering and in uplifting the moral standard of the people.

I dare say there is no line of work in which our state can engage which will be more productive of good from economic, social, health and moral standpoints than is now proposed. During the session of the next legislature the public should assist the medical profession in obtaining sufficient appropriations for our State Board of Health to print and to distribute to parents and the young people of our state wholesome literature on social and sexual hygiene and preventive medicine. Until provision is made by our state to meet the expense of this work, philanthropists could do untold good in furnishing the means for the printing and distribution of choice literature in the form of circulars, or leaflets, on the subjects of social and sexual hygiene. The best methods of all kinds are being put to work to save and improve the health of the people and to elevate the standard of morality. In Indiana, Michigan, Connecticut and Washington the law requires the applicant for marriage license to swear to his freedom from venereal disease. It would save many innocent women from surgical operations, from lives of sickness and suffering, from sterility, if our state required all applicants for marriage license to undergo an examination by competent state officers and be pronounced

free from venereal disease before marriage license could be granted, or, in cases where this infection is found to exist, to furnish official information of this fact to all parties concerned, and thus provide state protection to all our innocent women who may desire it. This at least would save them from becoming infected helplessly, unknowingly and innocently. In Michigan venereal disease at the time of marriage renders the marriage voidable and the diseased individual criminally liable. The University of Prussia has ordered that instruction as to the dangers of venereal disease shall be given to every student in the universities and higher schools of that kingdom. The direful results of sex secrecy has made this work a necessity, and education along these lines are bringing good results every day. One of the most distinguished and influential prelates of England says: "In parental modesty, so called, lies the root of the social evil." "The question is not, will your child learn that which you so sedulously strive to conceal; the question is, shall your child learn the sacred truths of life in a manner so reverent as to create an abiding admiration of the beneficent purposes of our Creator and an enduring sense of the dignity and nobility of personal purity, or shall it acquire clandestinely, as otherwise it surely will, distorted, vicious, degradingly sensual impressions, destructive alike to spiritual development and material well-being? Who would risk their child becoming contaminated by immoral impressions by immoral companions, or falling a prey to those social scavengers who, through indecent book and picture, corrupt the untutored mind and sow seeds of illicit curiosity that make it the pliant victim of those human vampires who fatten upon those whom they despoil." "Spiritual influence is beyond doubt wonderfully potent in safeguarding the perilous transition from childhood to maturity, but without a more concrete application of spiritual admonition and a more frank indication of these pitfalls which beset the pathway of youth than is the rule in most of our spiritual and moral teachings they are liable to tend more toward curative than preventive results in their effects." "Better by far the duty to save from sin than the glory of saving the sinner."

"May not this movement suggest coördination of effort which will be productive of the greatest good, the upbuilding of a noble devotion to the cause of purity, a chivalrous recognition of the dignity of honorable womanhood, a determination to prove worthy of its companionship and confidence, and coincidentally a frank explanation of the sublime mysteries of life and an authoritative disclosure of the appalling consequences which follow violation of both Divine and natural laws. Experience shows this to be the greatest of all safeguards: and that boy who, with his

father's arms thrown around him in loving comradeship, and that girl who, in sweet communion seated on her mother's knee, learns these sacred truths from those dearest and best friends—their God-given protectors—is not only thrice armed against the insidious foe, but moreover brought into far closer and more confidential relationship that adds immeasurably to mutual happiness."

The Cass County Medical Society has done its duty in presenting to you these facts in accordance with the instructions of the American Medical Association. With this knowledge as to our social conditions, the responsibility of the work of social reform along these lines lies as heavily upon the shoulders of the public as upon the medical profession. The Cass County Medical Society stands ready to coöperate with you in this great undertaking. If a plan of work is proposed and carried out and good results obtained in the prevention of disease and in the elevation of the moral standard of our community, the credit will belong to you and to the organized medical profession.

CONSERVATION BY THE X-RAY *

W. L. BROSIUS, M.D.
GALLATIN, MO.

This, we believe, is distinctly the era of conservation. The political atmosphere is full of it. We hear much about the conservation of forest, of soil, of coal, and of water power. The Agricultural Department of our government is looking after tree, plant and animal life; our cattle, sheep and pigs are very carefully provided for; and even our honey-maker, the busy bee, is under the conserving care of our government.

While each department of effort is grappling with the problems that confront it and solving many of the troublesome and perplexing questions, to the medical profession is left the high responsibility of conserving the *genus homo*. How willingly we have undertaken the task and how well we have performed the work our brilliant triumphs over the Grim Reaper furnish abundant evidence. The dread of smallpox lives only in memory; diphtheria has been shorn of its terror; the bubonic plague would have been a thing of the past in America had it not been for the mixture of politics and commercialism, which allowed the disease to pass to the squirrel; but we are camping on the trail and are sure, in time, to overtake and overcome it. Yellow fever, at the mention of which the spirit of man grew faint and the wheels of commerce stood still, has been conquered by the mosquito-bar, and typhoid, with the wire screen. We feel that we are in command of the situation: the sterile spitting-cup will

master the "white plague"; Flexner's serum, promptly administered, has left us in that dreadful disease, epidemic meningitis, a mortality of only about 25 per cent.; and the hook-worm—



Case 1.—Patient, 74 years old. Rapidly growing and ulcerated cancer, presented this aspect in 5 months' growth. Very painful.



Case 1.—After 27 exposures to x-ray. Remained well 7 years. Died at 81 of diabetes. No return of malignancy.

yes, the hook-worm—such scientific and scintillating light has been cast upon him and his habitation that the Standard Oil Company is ready

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May 3, 1910.

to purge the earth of even a remembrance of him—then forever good-by to that “tired feeling.”

Thanks to the patient, painstaking and self-sacrificing workers of our profession, the cause

for us only to apply the means at our command to secure results. Leprosy and cancer remain to remind us that our task is not completed. The etiology of leprosy is very well known, yet the method of infection, whether direct or through



Case 2.—Before treatment; 84 years old.



Case 2.—Well nearly 3 years.



Case 3.—Before treatment; 79 years old.



Case 3.—Well for 3 years.

of many maladies and their channels of transmission are so well known and the laws governing these scourges are so understood that it remains

some intermediary, is still open to doubt. One thing we know—the tendency is toward destruction of the unfortunate subject. The cause of

cancer has so far eluded our most painstaking investigation. We know, however, that it is the result of abnormal proliferation of cells, which, so far as we know, are otherwise normal; that the cells

to reproduce their kind; that they are so like parasites that many investigators have believed the process to result from an invasion. These cells, having no function, always tend to degradation



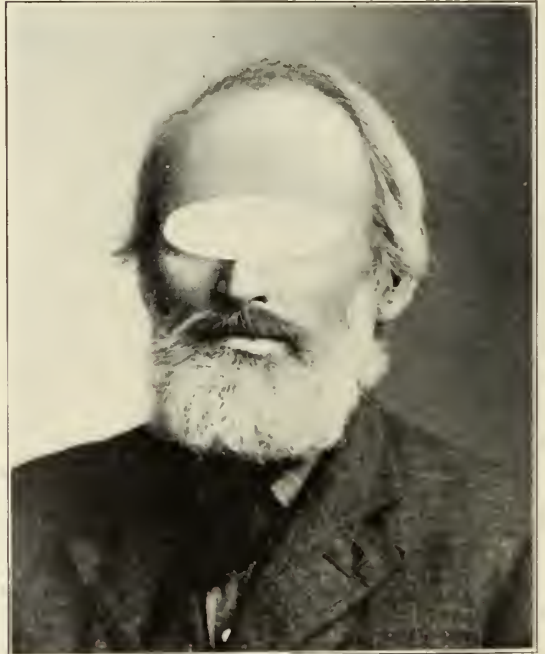
Case 4.—Postoperative 3 months after removal of all that could be cut away. Note drawing of skin to cover wound.



Case 4.—Been well 8 months. Remarkably smooth and elastic scar.



Case 5.—Before treatment.



Case 5.—No evidence of return after 11 months.

are embryonic in their nature; are transported through lymph channels, often stopped by lymph glands, sometimes escaping incarceration to set up a colony in some remote part; always disposed

and seem to invite destruction by necrosis. We frequently see the subject of this process so poisoned that he dies, not from loss of vital part, but from a general poisoned condition—carcinosis.

Our understanding of acquired immunity has undergone such revolution that we are making observations from a point of view different from that formerly occupied by the profession. The

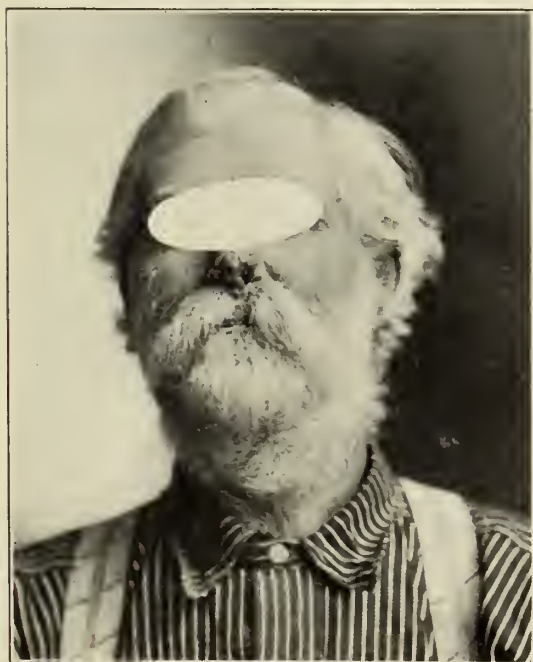
which antagonizes his progeny," Behring caught the inspiration and, like the great Pythagoras when he proved the theorem of Euclid, in the joy of his heart exclaimed, "Antitoxin!" We were



Case 6.—Before treatment.



Case 6.—Remains well; over 1 year.



Case 7.—Before x-ray.



Case 7.—Is living 6 years after this picture. Involvement of superior maxilla 2 years ago. In abeyance under x-ray.

doctrine of the consumption of elements which do not aggregate again during the lifetime of the individual is no longer entertained. When Pasteur said, "I believe that in the death of the microörganism there is left behind a poison

satisfied with the results of antitoxin in primary diphtheria, but were chagrined to learn that it had so little power against the post diphtheritic paralysis. The Klebs-Loeffer bacillus was de-

stroyed, but the toxin resulting in paralysis was not overcome. In the antitoxin of tetanus we have a prophylactic of great value, but its curative power seems to be very limited. When hope

hensible doctrine accounting for all the phenomena of germ disease, prophylaxis and cure.

Self-limited diseases, bacterial infections, tolerance of poisons, animal and mineral, are ac-



Case 8.—Before x-ray.



Case 8.—Remains well after 3½ years.



Case 9.—Before x-ray treatment.



Case 9.—Remained well to his death, 5 years after treatment.

and doubt were contending and we knew not which way to turn for more light, Wright announced antibodies for the infections and gave us the opsonic index, which, to the ordinary mind, is the most acceptable because the most compre-

counted for and brought to the level of the understanding. It is upon this level that we should look for salvation from leprosy and cancer. We hope we shall not be thought too enthusiastic

when we claim it to be a very reasonable conclusion that we have this conserving force in radio-activity. Dr. Gideon Wells, in his very able address before the Academy of Medicine, Toronto, April 6, last year,¹ speaks of autoimmunization and regrets that as yet we have no cure for cancer. Dr. F. J. Lutz, of St. Louis, in that masterful address, "Oration in Surgery," delivered at our fifty-second annual meeting at Jefferson City, in May, 1909, said: "It has been my

closed lamenting that "there is no specific cure for cancer." Dr. H. B. Wilkinson, physician in

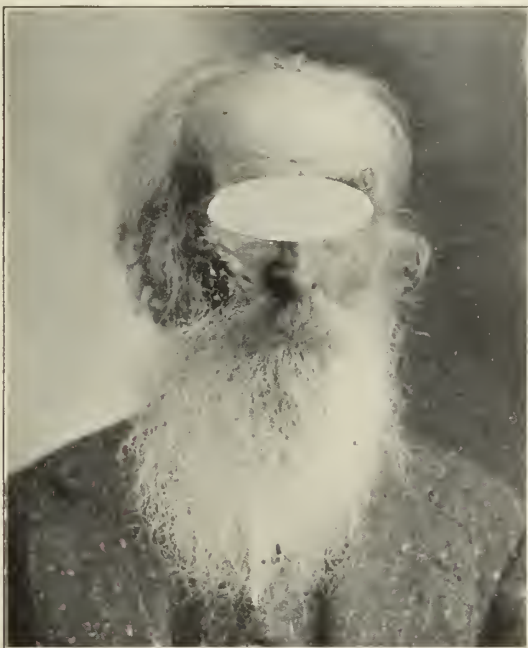


Case 10.—Before treatment. Postoperative sarcoma. Returned after 3 months.

Case 10.—Well after 3 months of x-ray and H. F. Remains well after 6 years.



Case 12.—Remains well after 20 months.



Case 11.—Cancer on brow remained healed; on cheek returned, involving molar bone and orbit. Died 2 years later, aged 92.

practice, however, to give all cases in which it has been practical such benefit as may come from a post-operative course of x-ray exposure," and



Case 13.—Very greatly improved. Died of acute gastric trouble. Sick only 2 days.

charge. San Lazaro Hospital, Manila, P. I.,² reports thirteen cases, with three cured, seven improved and three not improved, and says: "Cases

1. Resistance of the Human Body to Cancer, Jour. Am. Med. Assn., May 29, 1909.

2. Leprosy in the Philippines, With an Account of its Treatment with the A-ray, Jour. Am. Med. Assn., Feb. 3, 1906.

8 and 11 were both unusually far advanced and the patients were badly disfigured. They both improved to a marked degree, not only in parts of the body exposed to the x-ray, but in distantly removed parts of the body which the rays did not reach. In Case 11 the man had enlarged and ulcerated ears, lumps on the face, and enlarged, thickened and ulcerated hands, with loss of ends of several fingers. After application of rays to his hands, where the tissue showed the greatest hypertrophy, not only did his hands decrease in size and the skin clean off, but the ears became smaller, the ulceration healed and the skin of the face became more normal. In Case 8 the patient showed very unusual nodular development over the face. With treatment these nodules gradu-

Time would fail me to refer to the accumulated evidence of the curative effect of radio-activity in cancer. Allow me to refer you to some of the work of my own hands. During the past seven years I have treated one hundred and seventeen persons afflicted with cancer, using the term cancer for epithelioma and rodent ulcer. I herewith submit the results:

Location.	No. of Cases.	Multiple Cancers.	Single Cancers.	Post Operation.	Improved.	Unimproved.	Cured.	Recurred.	After Years.	Remain Well.	Over 3 Years.	Under 3 Years.
Back	1	1	..	..	..	..	1	..	..	1	1	..
Breast	3	..	3	2	..	1	2	..	..	2	2	..
Ear	2	..	2	..	..	1	1	..	..	1	1	..
Eyelid.	10	6	4	..	..	3	4	..	..	5	5	..
Face	39	6	33	4	3	34	4	..	..	30	15	15
Forehead	6	2	4	..	..	1	5	..	..	5	3	3
Foot	1	..	1	1	1	..	..	..	..	..	..	..
Gums	1	..	1	..	..	..	1	..	..	1	1	..
Hand	5	3	2	..	1	..	4	1	1	4	2	2
Leg	1	..	1	..	..	..	1	..	..	1	1	..
Lower lip	20	4	16	..	2	18	2	1	18	12	6	6
Nose	25	4	21	1	4	21	2	1	20	10	10	10
Neck	6	1	5	2	..	6	..	..	..	6	3	3
Penis	2	..	2	..	2	*	..	..	..	..	..	..
Temple	6	2	4	1	1	5	2	1	4	3	3	1
Vagina	2	1	1	..	..	1	1	..	..	1	1	..
Total	130	30	101	11	14	9	106	11	..	101	59	42

* One amputated and fear other will be.



Case 14.—Lupus involving nose, cheek, upper lip and right eyelid. Remains well after 4 years.

ally disappeared to a very marked extent. The gradual improvement seems to be progressing, if anything, more rapidly at this time (September, 1905) than at any previous time, although treatment has been suspended since January." Allow me to add that this is one of the cases reported with the seven improved. Dr. William Allen Pusey³ reports one hundred and eleven successive cases of epithelioma treated more than three years before, eighty of which were successful—72 per cent. Dr. Müller's case of inoperable malignant tumor, cachexia and loss of forty-one pounds, recovery and gain of twenty-four pounds under radio-activity⁴ certainly deserves our serious consideration.

Some of my patients had more than one distinct local development, and such cases I have classed as multiple, making one hundred and thirty diseased parts in the one hundred and seventeen persons. Counting the hundred and thirty growths, the percentage of cures is 75; counting the patients, one hundred and seventeen, the percentage is 78. I should like to mention that of the twenty cases of the lower lip there was but one in whom the glands became involved. This I consider very remarkable.

In the treatment of these cases I have not depended upon the x-ray alone, but have used the high frequency current, fulguration and ionic cataphoresis. We regret that, as yet, the personal equation must play so large a part in the use of these means and that the method of cure is not accounted for. We think, however, that it is not unreasonable to believe that the action of this vital force in its several modalities results in autoimmunization; whether through antibodies or antitoxin, we know not. When we have learned how quinin and arsenic destroy the plasmodium of malaria, how mercury and iodine cure syphilis, how the antitoxins operate, and how the bacterial vaccines obey Wright's opsonic law, we shall be able to account for the conserving power of radio-activities, the most prominent of which we have in the complex emanations from the Crookes tube.

3. Roentgen Ray in Epithelioma, Jour. Am. Med. Assn., Jan. 11, 1908.

4. Berlin letter, Jour. Am. Med. Assn., Dec. 18, 1909, p. 2139.

DISCUSSION

DR. JOSEPH GRINDON, St. Louis: I have been doing *x-ray* work for several years, long enough to be able to draw some definite conclusions. At first we were very enthusiastic, but later found the value of the *x-ray* in malignancy to be limited. There are many cases which the *x-ray* will cure, but which we can cure in other ways more expeditiously and at less cost to the patient. There are cases for which surgical methods should be employed, to be followed by the *x-ray*. Rodent ulcer, although histologically of the malignant type, and although a disease in which there lies a threat, is not in itself at all times actively malignant, if we use the word to mean something that threatens the life of the individual. We may speak of rodent ulcer rather as a disease which may become malignant than as being essentially malignant. Of course, it is a cancer, but clinically it may be sharply outlined from all other forms of cancer. In the first place, it is preceded by a precancerous stage consisting of keratosis and senile degeneration. In the second place, it is often multiple, while other types are not originally multiple. In the third place, it has little tendency to the upbuilding of tissue, but a marked tendency to ulceration. Fourthly, there are no true metastases, nor, fifthly, involvement of tributary lymphatics, and, lastly, the condition is essentially chronic. I know people with this superficial type of epithelioma who have carried the disease for thirty years, so I claim it is not malignant, in the ordinary sense of the word. It is in this class of cases that the *x-ray* is applicable, except where the growth is so small that simpler means will suffice. It is not necessary to use a sledge-hammer to kill a flea, and if a little caustic potash will do the work, why employ the *x-ray*?

DR. WILLIAM FRICK, Kansas City: The *x-ray* has proved valuable, but we must recognize that there is a limitation to its use. There are some forms of cancer that I think are treated particularly well by the *x-ray*, such as the slow-growing forms of epithelioma. These are treated by the *x-ray* better than by any other method, simply because we can avoid the leaving of a scar, and epitheliomata usually develop on the face. If you remove an ulcerative epithelioma with the knife you will have more or less scar tissue, and more or less drawing of the tissues, even if you resort to a skin graft. The multiple conditions Dr. Grindon speaks of are better treated by the *x-ray* than by any method, because there are so many of these points developing on the face that, while they are not epitheliomata at the time, are at least precursors of the condition. If you use the knife you leave more or less scar tissue, while with the *x-ray* you will have no scar at all. In the deeper forms of cutaneous cancer it seems to me a mistake to rely entirely upon the *x-ray* for a cure. In the treatment of breast cancer it is a mistake to depend on the *x-ray* alone. In the deep cancers the best method is a combination of surgical measures, followed by the *x-ray*.

DR. GEO. W. GOINS, Breckenridge: It is pretty generally conceded that the indications for the *x-ray* are the potentially malignant skin lesions, those that are very superficial. When the condition is superficial you get the full force of the bombardment of those cells, without affecting the vitality of the normal cells, so that you can kill the pathological cells without injuring the normal cells, but in the deep-seated conditions you cannot kill the pathological cells without injuring the normal cells, and if you use a ray of high intensity for a prolonged period you will get what is

known as an *x-ray* burn. It is the superficial, pathological cell, of low vitality, that can be satisfactorily destroyed by the *x-ray*.

DR. C. H. SUDDARTH, Smithville: That the *x-ray* has a place in the treatment of malignancy cannot be denied. It has advantages as well as disadvantages as compared with other treatment. One authority, who has had as much experience in the treatment of malignant disease as any man in the United States—Bainbridge, of New York—says that nature attempts to throw out an exudate, or line of protection, and to disturb this line would merely result in an increase of the infection by opening the lacteals. This you will not find following the treatment by the Roentgen ray, which destroys the cells and interferes with the diffuse spreading that you get after the use of the knife. To avoid an *x-ray* burn do not ground your patients. Place them on an insulated platform, then you can use a tube as close as you want it, and you can use it every day, and not burn your patient.

DR. BROSITUS, in closing: I thank you for the consideration you have given this subject. I think there is a great deal connected with cancer and the question of metastasis that we do not understand. I had never doubted that malignancy was liable to metastasis. This is one of the things I thought was settled. But I could not help thinking, when I read Wilkinson's "Treatment of Leprosy," that possibly the human economy is able to manufacture some sort of an antibody, that, if it did not cure, would greatly limit or restrict a growth, and the patient's life be conserved by the employment of the *x-ray*. Allow me to call attention to the fact that eleven of these cases were post-operative. In one case a good surgeon had removed the parotid gland, going up behind the ear, and inside of five months the whole scar was cancerous with lumps the size of my fingers between the stitches. I told the patient it was not a favorable case, but he said, "do what you can for me." Only a year has elapsed yet he is well and happy to-day. In a breast case, removed by an elliptical incision, the surgeon had to do a modified Halstead fifteen months later, and inside of three months some of the stitch scars were the size of chestnuts, with pain in the arm and a growth in the axilla. I advised her to have the mass under the arm removed. She stated she had had two operations and wanted me to use the *x-ray*; and I did so, with the result I have already reported.

What I wanted to bring before this Association is the fact that we have had a percentage of cures from this method that from operation it would have been very unreasonable to expect. Some of these patients had refused operation. I believe that there is immunity conferred; that, in the destruction of the embryonic cell, there is something left behind which antagonizes the progeny of that cell. I do want to say here that we have expected too much of surgery in malignancy. I would not discredit surgery. I would not undertake to ray a case that could be better treated by the knife. I do not think a man is warranted in using the *x-ray* in any case suitable for surgical procedure where the individual is willing to submit to operation, but I do think we have expected our surgical brethren to do the impossible for cancer patients. Forty per cent. is about the best that surgery claims in cancer of the face. The surgeon says, "Let us have the patient a little earlier, and let us cut a little wider and a little deeper, and we will have better results;" and they have had these patients earlier and have cut deeper and wider, and the results have been better, but when the surgeon gets through with his patient, the *x-ray* will confer a degree of immunity he could not have without it. And in many cases the use of the ray alone will be satisfactory.

ETIOLOGY AND TREATMENT OF CARBUNCLE *

WILLIAM FRICK, A.M., M.D.

KANSAS CITY, MO.

This is a very important subject, since carbuncles may occur at any and all seasons of the year and in all climates of the world. The cases are numerous, the suffering endured is extreme, and not a few lose life itself as a result of its ravages.

Some personal experience several years ago induced me to give special attention to the subject. Occasionally, even to this day, we hear an expressed opinion that furuncle is caused by the staphylococcus and carbuncle by the streptococcus. In a series of cases we have endeavored to ascertain the active etiologic organism and wish to report our findings in this paper. We always used our best endeavors to get pus for cultures from the bottom of carbuncle and believe our findings indicate, without a doubt, the active organism in the production of the disease.

CASE 1.—A physician, 49 years of age, family history negative. All his life has been healthy. Early in the spring had a rather small furuncle develop on the back of neck. This was permitted to run its course to the formation of the central slough before opening and evacuating the pus; after this was done healing took place rapidly. One week after the healing of this, another furuncle of the same nature appeared, two inches away from the first. This was opened and eurented very early, but it did not subside at once, in spite of having the central infected part eurented out, it went on to the formation of pus, after which it healed. Three weeks later a patch of skin as large as a silver quarter dollar on the back of the neck, nearly central in location, began to puff up, became fiery red, with an intense, burning pain in the deep cutaneous tissues; in a few days numerous points of necrosis, with pus discharge, were seen all over this area and the process was rapidly extending; fever was present, reaching 103. The suffering was intense, appetite very poor, sleep not of a restful character, and a continued loss of flesh, at the rate of about one pound a day, made the condition of affairs serious. An attempt was made in the early history of the carbuncle to cure with a leucodescent light. Later, Bier's treatment by passive hyperemia was used, but without benefit. The carbuncle progressed rapidly and became in two weeks as large as a soup plate, apparently an impossibility in that location, but the swelling was immense. It was quite evident that nothing but an extensive surgical operation would avail; this was done, and an enormous amount of diseased sloughing tissue was removed. A gradual recovery ensued, but a long time was required to complete the healing. From the beginning of the carbuncle to the final healing of the wound was a period of five months. Cultures from the pus in this case proved the active etiologic organism to be the staphylococcus citrius. No cause could be assigned for the virulence of this infection, except that the patient had worked hard all winter with less than normal rest for recuperation; there was no dissipation of any kind whatever and no debilitating disease to sap his vitality. That there was a marked lowered resistance to the staphylococcus is quite evident from the results. Moreover, it is quite evident that the same organism which produced the

small furuncles early in the spring also caused the malignant carbuncle later on.

CASE 2.—A physician, 40 years of age, carbuncle, located on back of neck, in extent two and one-half to three inches in diameter, circular outline with 15 to 20 necrotic points. There were present chilly sensations and fever up to 102; pain was very severe. His case was seen early and treated by x-ray exposures daily, for several days. No benefit being manifested, crucial incisions were made. Improvement did not seem very apparent at once, but in a few days the sloughing tissue came away and the carbuncle progressed to recovery. Culture made from pus in this case produced pure colonies of staphylococcus aureus. This patient was rather a frail man to begin with and gave evidence of not enjoying robust health; he had been having trouble with gall-stone, which accounted for his delicate health. Then, too, this carbuncle occurred in the springtime, a season of the year which seems to be especially favorable to the development of this disease, due possibly to the character of the food commonly used through the winter season.

CASE 3.—A physician, 30 years of age. This was rather a small carbuncle with something like one-half dozen necrotic points, on the neck. Temperature was not materially increased, pain was considerable, but not enough to prevent him from following his usual occupation. Cultures of the pus from this case produced only staphylococcus aureus. This carbuncle did not extend as deeply into the tissues as the other two, and altogether it involved much less cutaneous tissue and healed with corresponding quickness.

CASE 4.—A colored laborer, 40 years of age. A large carbuncle on the back of his neck, fever of moderate degree; was treated by Bier's passive hyperemia plus deep incisions. Cultures from the pus in this case grew colonies of staphylococcus and streptococcus. It would be strange, in a disease like this, if there were not occasionally some contamination of the etiologic organism. In this case we believe without doubt the streptococcus is simply a contamination and not at all etiologic.

CASE 5.—A carpenter, 52 years of age. Carbuncle on lumbar region of the back, right side of the spine about four by six inches in diameter; rather marked prostration, temperature 103, pain severe; patient gives evidence of being quite ill; numerous points of discharge of pus. Incisions producing free drainage and eurenting necrosed tissue ameliorated conditions in a few days. Cultures were made two days after incisions were made, from pus coming from the bottom of the carbuncle, and a mixture of staphylococcus aureus and colon bacillus was obtained. It is needless to say that the colon bacillus in this case was the contaminating organism. In fact, the odor of the pus at the time of taking the culture was just beginning to reveal the characteristic odor of the colon bacillus. It had not done this at the time the incision was made.

CASE 6.—A merchant, 33 years of age. Carbuncle located low down on the back of the neck; 10 or 12 necrotic points were seen at first visit; pain was considerable, very small amount of fever was present and the slough soon separated and came away, allowing the healing to take place soon. Cultures gave only colonies of staphylococcus aureus.

These are enough clinical cases to report for our purpose. Further reports would be simply repetitions of what we have already given.

Furuncle and carbuncle, then, have evidently the same etiological organism, which is the staphylococcus. To this rule of the staphylococcus there may be some exceptions. The resistance of the patient to this organism must be

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

below par. If the presence of this organism in the skin always produced lesions of this kind we would fare badly indeed, since these organisms seem to be always present on the surface of the skin and in the superficial epithelium. Ordinarily, however, the resistance of the patient is sufficient to prevent such development. This lack of resistance apparently sometimes depends on lowered vitality; at other times these patients seem to have enjoyed good health up to the beginning of the development of the disease. In this class of cases the cause of lowered resistance may be accounted for by assuming the circulation in the blood of irritating substances, such as may be the case when the diet is not correctly proportioned. This, we believe, will explain the greater prevalence of these lesions in the spring. The greater scarcity of green vegetables and fruits during the winter, with a corresponding increase in the use of meats and sugar, will, in my judgment, account for it in some cases.

In diabetic patients we have a combination of these two causes, the sugar in the blood being irritant and the diabetic disease being debilitating; and in these patients we find the most numerous fatalities caused by carbuncle. The difference between furuncle and carbuncle is, then, it seems to me, principally one of location, since the same lack of resistance to this organism is operative in both diseases. Furuncle is located within the skin structures and the pus, and pus organisms find a ready exit to the surface, there being less resistance toward the surface than toward the deeper tissues. When it begins to multiply and produce its destructive effects in subcutaneous tissue the resistance to its extension is less laterally than toward the surface of the skin; therefore the extension is principally laterally. There are points of less resistance in the direction of the surface here and there, such as hair follicles, sweat gland ducts, and probably other points of less firmness of skin tissue. At these points we find the pus from sloughing tissue comes to the surface, but pus and pus organisms are also pushed into the subcutaneous tissues around it, and the destruction of tissue thus goes on until by some effort of nature or some assistance given for the exit of pus, or until some assistance is given the leukocytes in destruction of the organism.

Treatment.—The series of cases here reported was observed several years ago, before we had an opportunity to use some of the newer methods of treatment. We are quite confident that modern therapeutics have disclosed improved methods of treating these cases where such treatment can be properly conducted. The use of vaccines has produced some brilliant results and would, in the light of recent researches, seem to be the logical

method of treatment. The *x*-ray treatment has been essayed and seems to be a failure. The leucodescent light and other light treatment must be placed in the same category. The treatment by passive hyperemia has not proven efficient. After looking the field over and considering all methods we must conclude that, where the vaccine treatment cannot be properly carried out, the best treatment by far in managing these cases is the surgical one. Free incisions serve to lessen resistance toward the surface and permit drainage of the pus, and along with this pus there is an exit for many of the offensive organisms, while into the free incisions can be carried antiseptics sufficiently strong and penetrating to destroy many of these same organisms in the affected tissues. Add to this, local treatment, tonics and alternatives as seem to be required and we have, I believe, for some years to come, the best method of caring for these troublesome and dangerous affections.

I should say that, when carbuncle is seen to be developing, the opsonic or vaccine method should be resorted to at once if opportunity offers. If situated so that these methods cannot be made use of, then the surgical method should be resorted to early and not delayed until there is a great amount of destruction of tissue.

DISCUSSION

DR. JOSEPH GRINDON, St. Louis: I don't see why any one should want to treat a carbuncle with rays of light, if he has a knife. As to the leucodescent light, it is nothing but a big incandescent lamp which gives rise to but few therapeutic rays and as the thing is in a bottle, if any therapeutic rays are formed they cannot get out, glass being opaque to them. There is no doubt that the opsonic method is best applied with autogenous vaccines, but they are so expensive that in many cases they cannot be used. It is practical to modify this method by taking the clinical condition of the individual as a guide and using a stock vaccine.

DR. H. M. LYLE, Kansas City: I wish to endorse what Dr. Grindon has said. I think the leucodescent light is valueless. All you get from the leucodescent light is the heat. You do not get any therapeutic rays from it whatever. The only rays that have any beneficial effect are the violet rays and the rays from the *x*-ray. The only real treatment outside the vaccine treatment, is to drain, which should be done early.

DR. WM. FRICK, in closing: I recognize that the presence of sugar in the urine is a predisposing factor, but in many cases there is no sugar. I examined the urine in most if not all these cases and I don't think there was sugar in any of them. I am glad Dr. Castle spoke of the use of autogenous vaccine. The staphylococcus vaccine sometimes gives brilliant results in checking or clearing up the condition, but at the same time it is wise to attend to the general condition of the patient; examine the urine for sugar, attend to the diet, and I have found that the iodid of iron will frequently help these patients.

MY FRIEND THE OSTEOPATH *

J. J. GAINES, M.D.

EXCELSIOR SPRINGS, MO.

The osteopath, in the pursuance of his hobby, formerly had anything but smooth sailing. He found it hard to convince the world that he had "the balm of healing in his wings;" but, nevertheless, considering the short time he has been before the public, he has made quite a bit of progress, and has found enough suckers to keep him in business. His parent school, founded by the now medallionized discoverer of the "science" in 1896, has made it possible for hundreds of butchers, hostlers, janitors, reformed barbers, brakemen, street-car conductors, and weak-minded doctors of other schools, to become respectable "osteopathic physicians" in a truly marvellous way, and as a result osteopathy has flourished like the green bay tree.

But of all the obstacles to his success that the osteopath has encountered, by far the easiest was the Missouri legislature, headed by Lon V. Stevens, governor. And I may remark here that any chimerical blatherskite with a hobby can get onto the statute books of Missouri with less exertion than in any other state in our union. The osteopathic fantasy was born in Kansas, but was kicked out before it got good and ripe, and, like the needle truly pointing to the pole, it headed for Missouri and was swallowed without putting into a capsule.

It may not be long till our legislature will give us chiropractic surgeons, half-baked Eddyites, divine and magnetic healers galore, while they are heaping up, through our state board of health, more obstacles and requirements for our poor regular boys to stumble through before they can become real physicians, making their road harder and harder each year, while they allow some grocer's clerk, in the guise of an osteopath, to sneak in and announce himself the superior, with any alleged claims he may offer in his charlatanic fight against us. And by the time our boy has been ridden hard in some approved medical college for four or five years, and been passed on, graded, and then bumped by a board of examiners, he is in poor physical and mental condition to combat the horde of fakirs who are placed before a gullible public as his equal or superior.

Our state board, unable to exterminate a common quack, is supposedly an institution to protect the people from fraud and ignorance. Hence they keep blindly piling up requirements on the regular boys. Years ago good physicians were made in twelve months' study; they are still good. And our boys, their equal in brain and industry, with far better advantages, are compelled to at-

tend thirty or forty months, and then have to be grilled by a committee of political doctors. But I digress, and when I talk along this line I get mad.

When we study a thing we look at its origin very critically and the source from which it sprung. Do men gather grapes of thorns, or figs of thistles? Not much. Edison was an electrician all his life. Harvey was a medical man straight through. Rockefeller was an oil man out and out. What was A. T. Still, the man that evolved osteopathy? Let us see. I quote from a standard history of Missouri, compiled by a man-to-man canvasser, who obtained his statements from headquarters.

A. T. Still, who says was "the first osteopath in the world (that sounds lofty), was born in Virginia in 1828. His father was a preacher and doctor combined. From this bicornate origin young Still claimed to inherit a natural desire for medicine. Doubtless he could taste it strong. The Still family were not kindly treated in Virginia, and the preacher-doctor was "persecuted in many ways," and so they emigrated and lodged in Tennessee, where young Andrew says he attended "the Holston College of Newmarket nearly three years." (He was about 7 years old.) If this was a reform school, veterinary or agricultural, or even a medical college, deponent sayeth not. The metropolis Newmarket is not mentioned in the Encyclopedia Americana and I can find no record of such ever existing. If it did, I stand corrected.

They squatted a short time prior to 1853 in Macon County, Missouri. Here, our hero says, he "pursued various studies in the common schools." This may have been before the Tennessee course, and the studies were pretty "various" in Macon County prior to 1853. These two points gave Andrew the entirety of his collegiate training. He probably got his superior knowledge of anatomy there. At any rate, he did not go wild on the subject, considering the anatomical facilities of that early day. Then they went to Wakarusa, Kan., where the elder Still was physician and surgeon and missionary to the Shawnee Indians. Then young Andrew got busy. He was a noted abolitionist and was a member of the Kansas legislature from 1856 to 1861. He then joined the Ninth Kansas cavalry for a year, but the company was disbanded, presumably because it was useless to the government. Being bound to fight or look for another job, and being a lover of carnage, he organized a company of his own and was its captain. Later he became major. He says he "vanquished the forces of General Price under Quantrell and Shelby." Got his clothes shot full of holes, but his hide escaped, by the intervention of a kind Providence. That's the first time I ever knew of the forces of General Price under Quantrell and Shelby. But,

* Read at a meeting of the Twelfth District Medical Society, at Liberty, Mo., March 24, 1910

then, I am poor in history. The government is, no doubt, still paying for these clothes, in installments. This fight, alleged to have been pulled off "near the Little Blue," is the only one he mentions.

Still returned home after the war, and with one hand on the plow handle and the other gathering buffalo-chips for poultices, he says he "practiced (the allied professions of) medicine and farming." He got an interest in a saw-mill and cut up a good many Kansas cottonwood logs. Studying anatomy? Don't speak of it. Then he turned his fertile brain to inventing labor-saving machinery, and perfected a "rotating" churn. This he peddled, and it may be he discovered the theory of misplaced guy-ropes in summer diarrhea while sloshing the lacteal fluid before some wide-eyed farmer's wife. He pursued this calling till suddenly he discovered that the "human body is a machine." Then he fired his little 22-caliber gun and osteopathy was born.

Then he wanted to lecture on the "bonesetter's art" at the University of Baldwin (Kan.), but his neighbors said he was crazy and his brother said the same, so he was "handed his first lemon." But osteopathy was a fixture and the succulent "cow-poultice" and the boneset tea were allowed to rest with the polecat grease of the past. "Drugs" were abandoned and the "first osteopath in the world" was abroad. He sought an asylum in the wilds of Kirksville, Mo., and you know the rest.

I submit, in all fairness, if this record would be chosen as the road to greatness in anatomy. Does this haphazard life entitle its exponent to a seat in the halls of fame with our great Quain, Gross, Gray and others of our school?

Now let us look at "the second of osteopaths in the world." This was Harry M. Still, a son of the great Andrew. The early schooling he got was from his mother, during the years when she bore four or five other babies and did the housework. Still says "she was a better teacher than the average in the schools." Harry was a grocery clerk for six years. Then "The Master" took him in hand and made record time in graduating him in bonesetting. He took a course in "The Physiological and Anatomical School of Chicago." How long this course was, or what this school was, we do not know. I find no record of any such school. It must have been one of the ships that pass in the night. Now let us see what Harry did after his exhaustive preparation: Opened an office, Hannibal, Mo., in 1886; moved to Nevada, Mo., in 1888; to Independence and Rich Hill, in 1889-90; to Minneapolis, in 1892; to Kansas City, in 1893; to Kirksville, for two years; to Chicago, for three years; to Evanston, Ill. Then back to Kirksville—it wouldn't work.

Now let me quote (Missouri History, Vol. VI): "He was arrested repeatedly at the instigation of the old-school doctors, in Hannibal, Minneapolis, Chicago and other places, for no other reason that he was curing people without medicine and for alleged violation of the medical laws."

That's why he was such a hot-footer. Then he and "Dad" got their heads together and went against the easy Missouri legislature, got Stevens dizzy and skinned through—home at last. Then they incorporated the hot-bed of Stillism known as "The American School of Osteopathy" and ground 'em out like dust. All the Still family were made "professors" except the heroic mother, and this looks like a measly shame. She should have had the highest place. A renegade fugitive-from-justice allopath, with several criminal indictments hanging over him, was on the faculty. (Attest: Certain court records in Kentucky, in *Nelson vs. State Board of Health*.)

I mention these prominent examples of osteopaths to show how they launched out their claims to respectability and the attitude which they will necessarily always assume toward us. Do they know anatomy "better than the old-school doctors?" Compare the works of Gray and Quain with the little osteopathic fizzle. They say they have "perfected the principle discovered by Still." Have they? No. They have merely stolen physiology, chemistry, pathology and many other branches for their own use from our school, and obstetrics also. These sciences are not Stillism. Later I will show you where they swore that "they studied the same books as the regulars." Stole them. They say: "When surgical incisions are necessary we do them the same as other schools." Stealing that also. Believe me, this is really the narrowest of fads of to-day, and if compelled to practice straight Stillism they would starve to death, ashamed of the nakedness of their little cult. The people could see through it, whereas the old "hoss" of the drugless science says: "The physicians were chagrined and the people mystified." Some of the people are still befuddled enough to be duped by these fakers. 'Twas ever thus.

The statute authorizing osteopathy says: "The practice of osteopathy is in no sense the practice of medicine or surgery." Then our lawmakers thought they had squared themselves in the eyes of the doctors and the public. Not so, for they do not say what the practice of Stillism really is—leaving a nice loophole for them to sneak out of if they get off their mono-rail and pretend that they are "osteopathic physicians."

Utterly without a principle of ethics, they abuse and villify the regular school of medicine, which they owe for their very life. See the various "journals they publish" and read the pages of slander and lies. See the teeming ignorance

and dishonesty. Waging a dirty and undermining warfare on an honorable profession of which they are as ignorant as Baalam's ass, and which will live centuries after the osteopath shall have changed into some other form of fakery.

In their early booming days I watched results and kept tab on them. Some of my patients had chronic disease and insisted on "trying osteopathy" while under my observation. One man took ninety "treatments" for transverse myelitis, without producing a symptom, good or bad. The only case of cholera morbus I ever lost insisted on taking osteopathy during the bowel derangement—died in spite of myself, two trained nurses and skilled consultation, and was sound as a dollar except acute cholera morbus. In about twenty other cases I kept results quietly and have notes of them, and am satisfied that not a single effect of any nature was produced on the patient.

I shall mention a typical case (one they do not boast over) that ought to be read by every invalid. This case is of court record, in the Supreme Court of Missouri, Division No. 1, October term, 1904. I have a copy in my possession, and it may be found in the *Journal of the American Medical Association* of March 18, 1905. It would pay anyone to read the horrible details of this case, which should settle the merits of osteopathy in any sensible brain. But here is a brief of the case:

Goldie O. Grainger, by her guardian, Appellant.
vs.

Chas. E. Still, Pres. Still Infirmary, Respondent.
Action for \$10,000 for malpractice.

The appellant in this case was a little girl, 7 years old, tubercular history. About this age she developed or really applied for relief for a pain in the right hip, that had existed for months and caused the mother to believe she was getting hip-joint disease. The pain was not severe and did not cause any limp nor interference with romping or play, but when the child stooped down it was noticed that she shielded the hip all she could. The mother took her to headquarters, to the president of Stillism, for diagnosis and treatment.

Still diagnosed "a slight dislocation of the hip-joint—could be reduced safely and easily for \$25—would take two weeks, but a month would be better," so a deal was made. He assured the mother in this simple case that the child did not have hip disease. He would have to "treat" the hip awhile to relax the muscles to effect reduction easier, and started in. In due time the case was ready for "reduction." The child had walked to the infirmary at all times up to this date and was fat and well developed, a healthy-looking little girl.

She was placed on the table and the limb bared. With a good grip on it the operator "twisted and

wrenched the leg, amid the screams of the little patient, till with a sudden thrust the femur was pushed violently upward and backward, producing four inches of shortening." He said he "made it go into place whether it wanted to go or not." The child was placed upon the floor standing, but she immediately fell down and had to be taken home in a carriage, and has never walked since. A high fever developed, and the osteopath visited her, but did nothing only to assure the mother she would get well, and not to worry.

She remained in this state four months. The limb perished and the hip remained stiff, but the acute symptoms abated and she was taken back for more "treatments." Then the faculty operators tried the case in turn. Daddy Still saw but did not conquer. They treated her off and on for four years: the child became a nervous wreck and even stammered in her speech. But the case got irksome to them. They finally closed their doors against the case.

Then the family went to the men who always stand for right and against fanaticism—to the regular surgeons. They found out the truth. He had produced an upward and backward dislocation—this expert anatomist—this man of better clay than his fellows. Then the guardian brought suit in the Circuit Court. The osteopath swore that the "regulars were not competent to testify on osteopathy." Yet they swore that "they studied the same books as the regulars." They also swore that "they had no definite system of reducing dislocations of the hip-joint."

The lower court found for the osteopath, ruling that the regulars were not competent witnesses. The case was appealed, as above stated. The Supreme Court ruled that people who studied the same books were competent, gave osteopathy a skinning as an undefined phantom and remanded the case.

Philadelphia was becoming the hot-bed of this fad. It is of printed record that the hospitals there are filling up with maltreated victims of this narrow "machine therapy" and sausage-mill hypothesis. The physicians there are preparing data, giving names, dates and particulars "that will so astound the public on this miserable pathy as to wipe out all claims to respectable recognition."

The osteopath should be restricted to Stillism and the Still hypothesis. They have no right to practice hydrotherapy, obstetrics, massage, electricity, and many other regular methods, even dietetics being in the doubtful class. They have no right to display a sign as "physician." They are not doctors—we have no objection to them being called Stillites, or osteopaths, but never doctors. And if our state board of health would watch them as closely and vigilantly as it does

the heaping of extra requirements on our boys the osteopath would soon hunt a new vocation.

[This is not a criticism of the osteopath as a citizen. I object to no man, even the foot-pad, as a citizen. It is his work and practices that I am going after.]

THE DOCTOR AS A WITNESS *

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In the pursuit and practice of his profession the doctor is often called upon to testify in court. Matters coming under his notice as a physician or surgeon are often made the subject of legal inquiry, and he may be asked to tell the court what he knows in relation to them.

Sometimes in the course of a judicial proceeding a condition is encountered which is outside the range of ordinary knowledge, requiring the exercise of a mind especially trained to understand such conditions and to elucidate them. When this condition lies in the domain of medicine or surgery the doctor, on account of his special training and skill and experience, is called upon to give his opinion as to the import and significance of such condition. It is very essential, therefore, that he be aware of his duties and alive to his privileges under the law when placed in such a position.

In any judicial inquiry the law furnishes the machinery together with the rules of procedure. This machinery consists of the various courts as by law established. It is the duty of the doctor, when summoned as a witness, to obey the mandate of the court summoning him. This is usually in the form of a writ of subpoena, and service is accomplished by the officer of the court showing the original and leaving a copy. In civil cases the witness is entitled to demand his fee and his mileage to and from the court room. In this state, one day's fee, and mileage, if distance is over forty miles; in criminal cases this privilege is not allowed, but the witness must respond to the summons and be content with such provision as the law makes for his reimbursement. Disobedience to the mandate renders the witness liable to commitment for contempt of court.

The court in session is composed of judge, jury, counsel for the plaintiff, counsel for the defendant, clerk of the court, the sheriff or other officer, and the official stenographer. The judge hears and decides all questions of law, and passes upon the competency of the witness and the competency, relevancy and materiality of his testimony. The jury note and weigh all the facts presented to them in the course of the trial, and decide as to the merits of the case.

The order in which the witnesses are examined is as follows: First, for the affirmative side of the case; second, for the denial of the charge; third, for the rebuttal of the denial; fourth, sur-rebuttal. The witness is called by the sheriff, the oath is administered by the clerk. The witness being sworn, he is asked by the side calling him concerning his qualifications to testify as a medical witness. The opposite side has the right to cross examine him on this matter, and if any objection is raised the court passes on the question of his competency. If competent he is put through his direct examination.

The counsel for the side calling the witness conducts the direct examination, usually by a series of questions which shall guide the witness as to the order in which the facts shall be stated, and refresh his memory with regard to the facts themselves.

The cross-examination is conducted by counsel on the opposite side, and is intended to test the truth of the statements made by the witness in his direct testimony. If anything new has been elicited or any contradiction developed the attorney for the side calling the witness is entitled to re-examine him, to explain the new matter, and the opposing counsel to re-cross-examine him.

As the competency of a witness and the admissibility of his testimony are matters purely legal, governed by well-established rules of court procedure, and are for the court itself to determine in each individual case, they will not be discussed here. This paper deals with the personal and professional aspect of the matter, the qualifications of the medical witness and the manner and spirit in which his testimony should be given.

The doctor should be an ideal witness. On the witness stand he is in the limelight. For the time being the dignity and honor of a great profession are in his keeping, and he should so acquit himself that they shall issue from the ordeal untarnished. It is the duty of the medical witness to respect the authority and dignity of the officers of the court, and to conform to its rules of procedure. It is his privilege to receive at their hands the respect and courtesy due to him as a member of a learned and honorable profession. If he concedes the one he has a right to demand the other. His demeanor on the witness stand should be such as to command this and reflect the learning and skill of the profession he represents.

If called to testify to facts coming to his knowledge, or under his observation in the course of his professional duties, he should state the facts, simply and clearly, as he saw them, or as he knows them, avoiding any expression of opinion unless it be specifically asked for. There should not be the faintest suggestion of evasion, indecision or exaggeration about his answers when testifying to facts.

* Read in the Medical Section, Missouri State Medical Association, Jefferson City, 1909.

This will necessitate the witness being certain in his own mind as to the existence of the facts. This involves the further necessity of himself having to observe closely all essential conditions and features of any case he is called upon to treat. The doctor should acquire the kodak habit, mentally at least; especially in any case that will probably become the subject of judicial inquiry he should take special note of every salient feature, make brief notes, and, if need be, a rough sketch of the surroundings. The doctor should be certain of his facts, state them simply and clearly, then insist upon the exact truth of his statements.

When called upon as a learned witness, to aid the court in understanding the significance of the facts in evidence, which significance is outside of ordinary knowledge and experience, it is absolutely necessary that the significance should be perfectly clear to the doctor himself, for he cannot hope to enlighten the court concerning that which is not clear in his own mind. This will necessitate a thorough understanding of the matters in question. He should study well, and familiarize himself with every phase of the question, using every source of information available. The doctor owes it to himself and the profession he represents to be thoroughly posted. In giving this information to the court he should be a model of clearness. Technical terms should be avoided as far as possible and, if used, explained. If asked to make a statement in his own way he should avoid circumlocution and prolixity, and state as succinctly as possible his views in the case. His answers to questions should be brief and to the point. He should give or be ready to give a reason for every statement or opinion expressed, so that the court may judge intelligently concerning the points involved. The doctor should know his subject, have a clear brain, keep cool, and express his ideas in such form that they will be readily understood by men of ordinary education and intelligence.

When called as an expert, to pass a professional judgment upon the medical aspect of the facts in evidence, he should be careful to confine himself to the strictly medical or scientific phase of the case, and not to trespass on the province of the jury and express an opinion on the merits of the case. His answer to the hypothetical question should be made according to his best judgment and in all good conscience, regardless of the wishes of the side calling him or the size of his fee.

On his direct examination by the side calling him the witness should in his answers follow closely the question put, giving just what is asked for, and not more. It is well to bear in mind just here that one kind of information is privileged and must not be divulged, either on direct or cross examination, viz., that information com-

municated by a patient to his physician, which is necessary to enable him to treat the patient properly. In this state the language of the statute is as follows: "It shall be incompetent for a physician or surgeon to testify concerning any information which he may have acquired from any patient while attending him in a professional capacity, and which information was necessary to enable him to prescribe for such patient as a physician or to do any act for him as a surgeon." This must not be divulged without the consent of the patient, otherwise the doctor is liable to a suit for damages. The patient, however, may waive the privilege, and then the doctor must testify or be liable to commitment for contempt of court.

It is during the ordeal of cross-examination, however, that the doctor will find his position as a witness the most trying. The ordeal is trying enough at best to a witness unused to the methods of court procedure and the subtleties of a hostile attorney. But sometimes it is unnecessarily severe. Unfortunately, some attorneys taking advantage of their privileged position and the limitations of the rules of evidence, and presuming on the leniency of the court, occasionally conduct the cross-examination in such a way as to humiliate the individual doctor and belittle his profession. Since the Thaw trial—of shady repute and evil memory—every cross-roads attorney seems anxious to catch a medical man as a victim and "grill" a doctor. It is well, therefore, to understand the purpose and scope of the cross-examination and the rights and privileges of the witness.

The purpose of the cross-examination is to test the truth of the testimony given on direct examination. This testing may take several forms. The medical witness may be examined as to his memory of facts; his knowledge of conditions; his ability to recognize and explain the special phases of the case under consideration, or to give an opinion on the medical aspect of the points at issue; his interest in the case, and his disposition toward the plaintiff or defendant may be inquired into. The scope of the cross-examination varies in different states; in most of them the rule is that the cross-examination must be limited to the facts and circumstances relating to the matter regarding which the witness testified on his direct examination. In this state, however, the rule of the English courts is followed, viz., that the witness, having been sworn and examined by one party, is subject to cross-examination by the other party on all matters relative to the case. In practice, however, the latitude allowed and the extent to which the cross-examination shall be allowed to proceed is largely a matter of discretion with the trial judge. Some judges are very indulgent in this matter and allow the attorneys large liberty, both as to matter and method. This is well enough where the evident purpose is to get at the truth, and especially if there is an

evident disposition on the part of the witness to conceal or to withhold proper and necessary information, but where counsel seems to proceed upon the gratuitous and unwarranted assumption that the witness is prevaricating, or is an ignoramus, or takes advantage of his natural timidity to confuse him, the court should exercise its discretion and protect the witness from abuse. One thing is sure, the witness should not be required to divulge more than is necessary and proper to enable the court to determine the truth and right of the matter at issue to arrive at a correct conclusion and to render a just decision in the case. Neither should the cross-examination degenerate into a contest of wits, a war of words or a test of nerves. In this connection the words of Mr. Justice Gary, of the Illinois Appellate Court, are to the point. In rendering an opinion in a case where the cross-examination had been of an insulting character he said: "The court, without objection from counsel for the appellant, should have stopped such an examination. * * * Witnesses should not be insulted when on the stand, nor should their examination be a contest of skill or nerves between witness and lawyer."

In cross-examination the doctor will need to keep his wits about him, and, above all, to keep his temper. If he loses either and becomes rattled or angry the examination is liable to end in a farce. He should treat the opposing counsel with all the consideration at his command so as to merit the same courtesy himself. He should be frank and open as to his qualifications; state fully the extent of his reading and experience on the subject, and at the same time admit unhesitatingly the limitations of his knowledge and ability. The witness will find his greatest difficulty in replying to questions where the examiner insists upon a categorical answer to the question, "yes" or "no." Taking advantage of the rule which permits him to do this, the attorney's question will sometimes contain a subtle assumption, or an indirect statement, of something he wishes to admit, which, if stated plainly and directly, would be instantly denied. Sometimes the question will be ambiguous and may be answered either way. Sometimes it will be in such a form that it cannot be answered truthfully either way without qualification. In such a case, courteously ask that the query be framed in such a way as to define the point more exactly. If this is refused, ask to be allowed to explain; then make a brief and plain statement of the point intended to be conveyed in the answer. If this be refused, enter a protest so that the counsel for your side may take an exception to the court's ruling. It is some compensation, in this connection, for the doctor to remember that if the ordeal of the cross-examination is great the opportunity to acquit

himself creditably and well, with honor to himself and the profession, is equally great.

In the matter of medical expert testimony and fees the situation in many states, including this state, is most unsatisfactory. Here again the rule of the English courts is followed, and the medical witness is summoned and paid by one or other parties to the lawsuit. On account of the workings of this system the reputation of the medical expert witness is at a very low ebb. Lord Kenyon, of England, has said that the medical expert witness often comes with such an evident bias to the consideration of the subject that almost no importance should be attached to his testimony. Judge Davis, of the Supreme Court of Michigan, has said that if there is any testimony which is absolutely unreliable, and worse, it is that of the medical expert. He says these gentlemen may be able to diagnose the symptoms of disease more learnedly, but when it comes to saying whether at any particular time it has reached a point where the patient is incapable of making a contract, or is not responsible for his actions, the opinion of his neighbors, men of good, common sense, is worth more than the opinion of all the medical experts in the world. Such stinging criticisms as these are humiliating and should set us to thinking and arouse us to action. There is crying need for reform and a complete reversal of this condition of affairs. The true position of the medical expert is essentially judicial, and, while he has no power to enforce his decisions, yet the opinion of a physician on matters medical should command the same respect as the opinion of a judge on matters legal.

In France and Germany the medical expert is a part of the judicial system; he is paid from the public treasury and his decisions within his own sphere are accorded the same authority as the decisions of the court. Our laws need amending so as to secure to the medical expert his rightful status and dignity. As to what form the amendment shall take may be regarded as a matter of detail. If he cannot be made a referee and must remain a witness, then he should be called by the court and his fee paid from the public treasury. I would like to utter a warning to both the legal and medical professions, that the present system is fraught with peril to the cause of justice, is creditable to neither profession, and to insist that there is urgent need for reform.

**THE OWEN BILL FOR THE ESTABLISHMENT OF
A FEDERAL DEPARTMENT OF HEALTH,
AND ITS OPPONENTS**

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NEW YORK

Anyone who is familiar with the workings of governmental departments of health such as exist abroad, who has seen or experienced the sanitary

benefits bestowed upon the people by the Reichs-Gesundheitsamt of Germany (Imperial Department of Health), the Conseil Supérieur de Santé Publique de France, and the similar institutions of most European governments, cannot help feeling amazed that any opposition should exist to the establishment of a federal department of health in this country. This amazement becomes all the greater when one considers some of the elements of which the opposition to that measure is composed. There is, for example, the *New York Herald*, a large and influential newspaper with an honorable career and a brilliant record for advocating everything that is conducive to the public welfare. Only in this particular instance has it allowed itself to become the mouth-piece of principles to which it is in general opposed, that is to say, principles and measures whereby the good of the people at large and the progress and welfare of mankind are hindered, and the lives of individual American citizens endangered. This particular newspaper is independent of any political party, or professional or religious association which might prejudice its point of view, and still it opposes a measure whereby all citizens of the country would benefit. The writer cannot help thinking that this powerful news organ has not informed itself thoroughly of the real purpose and function of a federal department of health, and in its attack upon a large body of men such as compose the American Medical Association, the American Public Health Association, the National Association for the Study and Prevention of Tuberculosis, the American Association for the Advancement of Science, and the various medical academies of the country, it is certainly misguided. It is to be hoped that the distinguished editors of the *New York Herald* will soon see that in their attitude toward the Owen bill they are not on the side of the people, but are working against the welfare and interests of the masses.

The principle of the Owen bill, establishing a Department of Health, has been endorsed by the President of the United States, by General George M. Sternberg, Surgeon General of the Army (retired) and Rear-Admiral Charles F. Stokes, Surgeon General of the Navy, by General Walter Wyman, of the Public Health and Marine Hospital Service, by Dr. Harvey W. Wiley, of the Bureau of Chemistry, by governors of states, by the Conference of State and Territorial Boards of Health, by the United Mine Workers of America, by the National Grange, by the republican and democratic platforms, and by numerous other organizations.

What is the principle of this bill which is advocated by thousands of men trained in medicine or sanitary science and interested in the public welfare?

Section 7, which embodies the main purpose of the Owen bill, reads as follows: "That it shall

be the duty and province of such a Department of Public Health to supervise all matters within the control of the Federal Government relating to public health and to diseases of animal life."

Section 2 of this bill deals with the unification under a Secretary of Public Health of the various agencies now existing which affect the medical, surgical, biological, or sanitary service.

There has recently been formed an organization which calls itself "The National League for Medical Freedom." It has for its purpose to combat the Owen bill; it is opposed to the establishment of a federal department or bureau of health. The name of this organization is certainly, if not intentionally, misleading. It cannot claim to battle for medical freedom, for there is not a word in the entire bill which could be interpreted as limiting the practice of medicine to any particular school. Their claim that the establishment of such a bureau of health would have any resemblance to a medical trust is entirely unfounded.

The life insurance and industrial insurance companies which advocate this bill certainly have no desire to limit medical freedom or to repress any system which offers the chance of lengthening human life. These companies do not favor medical partisanship, and their sole interest is to prolong the lives of their policy holders by whatever means possible. Their actuaries state specifically that they believe human life could and would be lengthened by the establishment of a federal department of health.

Lee K. Frankel, Ph.D., representing the Metropolitan Life Insurance Company, is a member of the Committee of One Hundred, appointed by the American Association for the Advancement of Science to further the propaganda for the establishment of such a department. Neither the above mentioned great newspaper nor any of the leading spirits of the "National League for Medical Freedom," all of whom, I regret to say, have allowed themselves to ascribe the worst motives to the members of the committee, will deny that the names of the officers of this committee show that it is thoroughly representative of the highest type of American citizenship. The officers of the Committee of One Hundred are:

President.—Irving Fisher, Ph.D., Professor of Political Economy at Yale University.

Secretary.—Edward T. Devine, Ph.D., LL.D., Professor of Social Economy, Columbia University, and Secretary of the New York Charity Organization Society.

Vice-Presidents are—

Rev. Lyman Abbott, D.D., LL.D., Emeritus Pastor of Plymouth Church, Editor of *The Outlook*.

Jane Addams, A.M., LL.D., Founder and Head-worker of the Hull House Settlement; Ex-president of the National Conference of Charities and Correction.

Felix Adler, Ph.D., Professor of Political and Social Ethics, Columbia University; Leader of the N. Y. Society for Ethical Culture.

James B. Angell, A.M., LL.D., Professor of Modern Languages and Literature and President Emeritus of the University of Michigan.

Joseph H. Choate, LL.D., D.C.L. (Oxford), Diplomat and United States Senator.

Charles W. Eliot, A.M., LL.D., President Emeritus of the University of Harvard.

Rt. Rev. John Ireland, LL.D., Archbishop of St. Paul.

Ben B. Lindsey, Judge, Reformer and Author, Denver, Colo.

John Mitchell, President of the Labor Union of America.

Wm. H. Welch, M.D., LL.D., Professor of Pathological Anatomy, Johns Hopkins University.

Need I say anything in defense of the Committee of One Hundred after having given the names of its officers?

Direct and most unkind comments, not to use a stronger term, have been directed especially against one vice-president of the committee representing the medical profession. I refer to Dr. Wm. H. Welch, M.D., LL.D., president of the American Medical Association. Those who know Dr. Welch and even those who only know of him, would justly think it absurd if I should see the need to say even a word in defense of this master of medical science. To us it is indeed difficult to understand that there could be any man or woman in this land capable of speaking ill of Dr. Welch. There is no name in the medical world which is more honored in this country and abroad, no medical teacher more admired, no one who has a larger following than this Johns Hopkins professor of pathology, and no physician more beloved and looked up to as representing all that is best and noblest in the profession than Dr. Welch. If there is any man in the American medical profession who is unselfishly devoting his high intelligence, his time, and his means to the public welfare, it is Dr. Welch. Gladly do we acknowledge him as our leader.

To accuse the president and members of the American Medical Association of selfish motives in advocating the establishment of a federal department of health is absurd. If there ever was an unselfish movement inaugurated, it is this one. It is a movement by physicians for the reduction of disease which *ipso facto* means a movement against their financial interests.

The writer is a member of the regular profession; he nevertheless would not wish for a moment to limit the freedom of any citizen to choose his physician from some other school or cult, providing the individual assuming the function and responsibilities of a physician had the training necessary to prevent him from endangering the life of his patient by lack of medical knowledge or skill.

The official mouthpiece of this "National League for Medical Freedom" is Mr. B. O. Flower, who had heretofore the reputation of a fighter for everything involving the spiritual, so-

cial, and physical progress of humanity, and it is inexplicable to many of his admirers how he can lead a movement opposed to the improvement of the health of the nation. The vast majority in the ranks of this so-called "League," though they may be well meaning, noble, and earnest, are not men and women who have toiled patiently for years in order to acquire the thorough scientific medical training which enables one to assume that great responsibility of the care and treatment of the sick. They are unable to appreciate the inestimable value of federal help in preventing disease. These people are blindly following certain individuals who designate the regular profession as a medical trust, and accuse the thousands of noble men and women who are devoting their lives to the alleviation of human ills of a desire to monopolize medical practice. The establishment of a federal department of health would mean pure food, pure medicine, control of plagues and epidemics, the advancement of medical science and through it the improvement of the health and increase of material wealth of the nation. It is said that many of the individuals opposing the Owen bill are commercially interested in the manufacture of drugs or patent medicines, of which latter the American people swallow about \$200,000,000 worth annually. Whether it is true or not that the National League for Medical Freedom is backed financially by drug manufacturers and patent medicine concerns, I am not prepared to say; yet even these men have nothing to fear from a federal department of health if the drugs they put on the market are pure and the claims made for patent medicines do not delude the public or endanger its health. The element which clamors most loudly for medical freedom is composed in many instances of men and women who have attended one or two courses of lectures or got their "degrees" without any training at all, and have developed into "doctors" and "healers" in a most remarkably short space of time.

Because the American Medical Association has always advocated a thorough medical education, is pleading constantly for pure drugs, is opposed to quackery, patent medicines and nostrums, its 40,000 members are considered a medical trust. Yet it is in the ranks of this very American Medical Association that are found the greatest number of unselfish devotees to preventive and curative medicine. It is among this association that are found the men who have added the greatest glory to the medical and scientific reputation of this country. America's greatest surgeons—Marion Sims, Gross, Sayer, O'Dwyer, Bull—were members of this association. McBurney, Jacobi, Stephen Smith, Welch, Osler, and Trudeau have graced this association by their membership for nearly half a century. The heroes in the combat against yellow fever—Reed, Lazear,

and the hundreds of others who have devoted their best energies and knowledge and often sacrificed their lives for the sake of medical science were members of the American Medical Association.

One of the most illustrious members of the American Medical Association is its former president, Col. William C. Gorgas, of the United States Army, chief sanitary officer at Panama, an adherent to the regular school. It is due to the genius, the scientific and thorough medical training of Dr. Gorgas that the formerly deadly Isthmus of Panama has now become as sanitary a region as any. A great patriotic enterprise, important to commerce and the welfare of nations, was made possible by this man. He has labored and is constantly laboring for the establishment of a federal department of health because he knows the inestimable benefit which such a department would bestow upon the nation.

Whatever advance has been made in medical science in America or in Europe has been made by scientifically trained men or by physicians not without but within the ranks of the regular profession. The greatest benefactors of mankind are those who diminish disease by prevention and cure. As another illustrious example of medical benefactors, may I be permitted to cite that great trinity of scientific giants who, through their labors, have accomplished so much in reducing disease and lessening human misery in all parts of the globe? They are Pasteur, of France; Lister, of England, and Koch, of Germany. All of them aided their governments by direct participation in the governmental health departments. We are still mourning the death of perhaps the greatest of the three—Robert Koch. I do not believe that there is, even in the camp of our opponents in this so wrongly called "League for Medical Freedom," a single intelligent individual who will deny the inestimable benefits which Koch has bestowed upon mankind through his discovery of the germs of tuberculosis, of cholera, of the spores of anthrax, of tuberculin, and through his many other equally important scientific labors. Yet, had it not been for the Imperial German Reichs-Gesundheitsamt, which is the equivalent of the institution we are striving for—a federal department of health—Koch never

would have been able to devote his life, energy, and great genius to those important discoveries through which thousands of lives have been saved in all civilized countries during the past few decades. It was while working in this governmental institution, which is doing exactly the work the Owen bill asks the federal department to do, that Koch discovered the tubercle bacillus and the bacillus of cholera. Because of the discovery of the comma bacillus, we no longer have those fearful cholera epidemics which formerly decimated our own and other countries. This disease can now be easily diagnosed and by proper quarantine its mortality can be reduced to a minimum. And what shall we say of the progress that has been made in the fight against tuberculosis because the Federal Department of Health of Germany enabled Koch to do research work and thus discover the bacillus of tuberculosis to be the primary and only direct cause of the disease? As director of the Hygienic Institute and member of the Reichs-Gesundheitsamt he inaugurated that wonderfully effective campaign against tuberculosis whereby the mortality from this disease in Germany has been reduced to nearly one-half what it was prior to the discovery of the tubercle bacillus.

Under Koch's inspiration and guidance and in the same institute many great scientific discoveries of incalculable value to humanity were made. Foremost among them are the works of Ehrlich, one of Koch's most celebrated pupils, who recently gave to the world a new remedy which promises to prove a specific in an affliction from which mankind has suffered for centuries.

As co-worker in the Kaiserliche Gesundheitsamt and the Institute for Infectious Diseases, affiliated therewith, we must also mention Behring, the discoverer of the anti-diphtheritic serum. Thanks to the discovery of this serum thousands of young lives are now saved which would formerly have fallen victims to the terrible disease known as malignant diphtheria. This was made possible by the opportunity given to the workers in the Reichs-Gesundheitsamt and Imperial Institute for Infectious Diseases.

Can there be any better argument in favor of the establishment of a federal department of health?

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

SEPTEMBER, 1910

EDITORIALS

CANDIDATES FOR CONGRESS AND SENATE: WHERE DO YOU STAND?

Nominations for members to the congress of the United States as well as to the senate have by this time been practically made. The medical profession of this state, regardless of party affiliation, should know what attitude these various candidates will assume in regard to the legislation which the organized profession has been proposing for some years.

How do the candidates for congress regard the question of a federal department of health? Favorably or not? How will the candidates for the United States senate act in this regard, if elected? The doctors of Missouri should be told by the candidates, without equivocation, what their position is on this important and far-reaching question.

This JOURNAL offers to publish the replies to the above questions, for distribution among the members of the Missouri State Medical Association.

OPTOMETRY

In the magazine section of a recent issue of one of the St. Louis newspapers a page was devoted to the description of remarkable surgical operations on the eye, to prevent the loss of vision from various causes, and of one successful operation to restore sight by transplanting the cornea in a young woman blind from childhood from ophthalmia neonatorum. The article has educative value of far-reaching influence and should act as a deterrent to the common practice of thoughtless people who, when seeking advice for affections of the eye, become easy prey of incompetent, untrustworthy and avaricious persons laying undue claims to the efficacy of glasses in relieving eye troubles.

The publication of this article is justification for the assumption that this newspaper is willing to support the medical profession in its effort to prevent blindness and to conserve the health of the people generally, an assumption that is further strengthened by the fact that it has often lent its columns to the dissemination of information for the protection of the people against dis-

ease. But will this newspaper go further and assist the profession in the fight to prevent the passage of laws permitting incompetent, unqualified and unskilled persons to perform dangerous manipulations upon this most delicate and most precious organ? And that fight will be on when the opticians again seek to inflict their transmutation upon the medical profession of the state.

Optometry has secured legal recognition in some states and its supporters in this state made assiduous efforts to pass a law at the last meeting of the legislature permitting the idiotic practice here; it failed only because a number of physicians, ably assisted by a few level-headed and broad-minded members of the legislature, convinced the committee that it would be calamitous to legalize such a cult. Notwithstanding this set-back, the advocates of optometry will undoubtedly make another, and perhaps more determined, effort to pass an act legalizing their practices at the coming session of the General Assembly.

Against the passage of such a law the medical profession is unalterably opposed. To recognize such a cult would but add one more brand of "practitioners" to the horde of tinkers, stupidly ignorant of the most rudimentary relation of cause and effect in disease, already let loose upon the public to tamper with the nation's most valuable asset—the health of the people; for no restricting or limiting clause in the act would prevent them from treating diseases of the eye. Osteopathy, according to the venerable and wise body of law-makers, including the then governor, who legalized that cult, is not the practice of medicine; and yet osteopaths treat everything, from measles to galloping consumption. Likewise, optometrists, if recognized, would soon be prescribing glasses for every eye trouble known to scientific medicine; they would assume the title of doctors of optometry and advertise themselves as being better eye doctors than licensed physicians; and people would believe them until the bitter truth sunk home through lost or permanently impaired vision.

THE HOSPITAL SITUATION IN ST. LOUIS

The hospital situation in St. Louis has assumed definite shape and we may now look forward to deeds. By mutual agreement with the present "temporary" staff and the hospital board, all applicants for positions on the visiting staffs will be required to answer the following set of questions. From the answers the board will choose the staff according to its best judgment of the ability, fitness and scientific achievements of the applicants. The questions follow:

Department for which application is made

Name

Residence

Office

Age Year of registration in St. Louis or
St. Louis County How long in
practice

Do you agree to make no appeal personally, or through
others, to any member of the Hospital Board, for sup-
port in your candidacy for a position on the Visiting
Staff?

1. Preliminary academic education. (Honors, prizes,
degrees.)

2. Medical education. When and where received. Post
graduate work

3. Resident hospital position. Give details of service
.....

4. Attending hospital positions. Mention details.....

5. Teaching positions. Give titles, institutions and
dates

6. Research or original investigations

7. Other contributions to medical literature.
Addresses

Compilations, etc.

Clinical reports

Publications

8. Official positions and membership in medical soci-
eties

9. Do you limit yourself to a specialty?

How long have you done so?

Remarks:

The following are for the *EXCLUSIVE* consideration
of the Hospital Board. (Not to be filled in by the
applicant.)

In estimating the qualifications of applicants due
weight will be given to:

10. Personality

11. General professional reputation

We are glad the controversy is at an end. The St. Louis hospitals offer a remarkable opportunity to the management and to the medical profession to accomplish something worth while in the progress of medical science, and all things should be forgotten and ignored except the object for which these institutions were created, namely, the alleviation of suffering and the refinement of the means to prevent and control disease. To the medical profession of St. Louis there has come an opportunity that generations of physicians longed for but did not live to see. What will the present generation of physicians do with their opportunity?

NEW ORDINANCE FOR SANITARY CON- TROL OF BAKERIES

In the correspondence column we publish a letter from the Assistant Health Commissioner of St. Louis, explanatory of the ineffectiveness of the board's efforts to enforce the observance of sanitary and hygienic regulations in bakeries.

We know that under the provisions of the present laws convictions for maintaining a nuisance, except in extreme cases, are practically impossible when applied to bakeries. We also know that the health department of St. Louis has made strenuous efforts to keep the bakeries clean. In this work the department should have the assistance of the medical profession of St. Louis, and doubtless the St. Louis Medical Society will coöperate with the health department in obtaining the passage of the new ordinance that he will introduce at the next meeting of the municipal assembly.

FLORENCE NIGHTINGALE

The first war nurse, the angel of the Crimea, and one of the founders of the Red Cross, Florence Nightingale, is dead at the age of 90 years. Her life was full of noble activities, philanthropic deeds, and charitable excursions among the needy.

The great undertaking from which has flowed an immeasurable benefit to mankind came to her when the Crimean war broke out and British, French, Sardinian and Turkish troops were allied against the encroachment of the Russian army. Soldiers were dying by the thousands from disease, exposure and neglected wounds amidst surroundings little short of revolting. The call found Florence Nightingale prepared to enter intelligently upon the work of relieving the distressing conditions, and with a small band of helpers she volunteered to go to the field, arriving just in time to receive the scores of wounded from the carnage of the Light Brigade at Balaklava.

Florence Nightingale had studied nursing in asylums, hospitals and infirmaries for many years before the Crimean War gave her the opportunity to teach the nations of the world that nurses were as much a necessity as soldiers on the battle field.

Her monument is more enduring than any wrought in brass or stone, more inspiring than the poet's song or the limner's art, for she will live forever in the heart of mankind.

NOTES

DR. H. M. ALLEN, of Rich Hill, delivered an address at a meeting of the teachers of Bates County in Butler last month, on the subject of "Civics and Sanitation."

MR. W. L. PEEBLES, who has been doing a great deal of x-ray work at the St. Louis University, has been appointed Professor of Electrical Engineering at the Marquette University, Milwaukee.

DR. WILLIAM W. GRAVES, St. Louis, departed for Europe the latter part of August to attend the German Neurological Association meeting. He will deliver an address on his investigations of the scaphoid scapula.

THE physicians and citizens of Harrisonville are contemplating the establishment of a hospital in that city. A committee from the county medical society is investigating the project and will report on its feasibility in the near future.

THE St. Louis Board of Health is preparing a new ordinance applicable to the sanitary control of bakeries and restaurants, since it has been found that the present laws are inadequate to punish proprietors for violations of sanitary rules and regulations.

DR. GUTHRIE McCONNELL, of St. Louis, assistant pathologist at the Snodgrass Laboratory (the pathological department of the St. Louis Health Department), has resigned his position to accept the chair of pathology in the Temple University at Philadelphia.

DR. GEORGE GELLHORN and Dr. Joseph Grindon, of St. Louis, have been invited to address the New Madrid County Medical Society on the subject of medical organization; and also to attend an open session of the society in the evening and give a public address on disease prevention.

DR. N. W. SHARPE, of St. Louis, delivered the oration on surgery at the meeting of the Missouri Valley Medical Society on September 1 at Omaha. His subject was "A Survey of the Modern Conception and Treatment of Fractures of the Femur, with an Exhibition of Splints, X-Ray Plates and Lantern Slides."

THE State Board of Health has found evidence that some druggists are selling drugs and proprietary medicines of an inferior quality, and has requested the State Pure Food and Drug Commissioner to make an investigation and ascertain what druggists are guilty of such infractions of the law. Dr. Cutler has appointed Charles E. Graham, a druggist of Kansas City, to make the investigation.

GOVERNOR HADLEY has been elected president of the Missouri Association for the Prevention and Control of Tuberculosis. The association sent a traveling exhibit to towns along the lines of the Frisco railroad last month, to instruct the people in the methods of preventing and controlling this disease. The exhibit was in charge of Dr. James Stewart, of St. Louis. Governor Hadley accompanied the car on a part of the trip.

DR. F. REDER, St. Louis, will attend the meeting of the American Gynecological and Obstetrical Association at Syracuse, September 20. After the close of the meeting he will go to Paris to attend the Twenty-third Congrès Français de Chirurgie. Dr. Reder has been invited by the president of the congress to take part in the discussion of the paper by Drs. Delore and Lenormant on "The Surgical Treatment of Exophthalmic Goiter."

DR. W. P. CUTLER, State Food and Drug Commissioner, has completed a trip through the southern part of the state and inspected stores for adulterated foods and drugs; he also talked to the people in the interests of good dairying. He collected a quantity of samples of eggs, butter, canned goods, ice cream, and other products that had to be condemned and has cited the storekeepers to appear and make explanations.

THE HENRY PHIPPS INSTITUTE FOR THE STUDY, PREVENTION AND TREATMENT OF TUBERCULOSIS.—Mr. Henry Phipps of New York has selected the University of Pennsylvania to carry on the work of the Phipps Institute. Mr. Phipps has already acquired ground in Philadelphia on which will be erected a hospital for this purpose. The extent of the benefaction exceeds \$5,000,000.

The report of the committee appointed to consider the future policy of the institute has been approved by Mr. Phipps and the trustees of the university.

The work will be divided into three general departments, each of which will be presided over by a director. For the directorship of the laboratory Dr. Paul Lewis, now of the Rockefeller Institute, has been selected; for directorship of the sociological department Mr. Alexander M. Wilson, of the Boston Association for the Relief and Control of Tuberculosis. Dr. H. R. M. Landis has accepted the appointment of director of the clinical department.

In addition to a board of eight directors, who will be directly responsible to the trustees of the university, an advisory council has been created and will meet annually at the institute. The following have accepted the invitation to serve as members of this body: Dr. Samuel G. Dixon, Harrisburg, Pa.; Dr. S. McC. Lindsay, New York City; Dr. William H. Baldwin, Washington, D. C.; Dr. Hermann M. Biggs, New York City; Dr. William H. Welch, Baltimore, Md.; Dr. Theobald Smith, Boston, Mass.; Dr. Gideon Wells, Chicago, Ill.; Dr. Simon Flexner, New York City; Dr. James A. Miller, New York City; Dr. Lawrence Brown, Saranac, N. Y.; Dr. Henry Baird Favell, Chicago, Ill., and Dr. James Pratt, Boston, Mass.

NEW HOSPITAL BUILDING FOR POST-GRADUATE MEDICAL SCHOOL.—Work has been commenced on the new building for the New York Post-Graduate Medical School, making the institution's capacity about 400 beds. It is to be twelve stories in height and will have several novel features. The building will include a tower, with rooms for fifty private patients, and on the roof of the tower will be a pavilion for open-air treatment. There is also to be a loggia, open to the street front and to the rear, on three floors, where beds can be kept permanently with exposure to the air. In addition there will be three long balconies to the eastward, and the entire top of the main building, seven stories high, with the exception of the space taken up by the tower, will be occupied by a roof garden, so that it can be seen that unusual provision will be made for giving the patients abundance of fresh air. There are to be eight operating rooms, 18x20 feet in size, but no large amphitheater for operations, as it is believed that the best results can be obtained by having small numbers of students in proximity of the operating table. There will be well-equipped laboratories for research work, and special attention will be paid to the investigation and teaching of tropical diseases. After the new building is completed the present quarters of the Post-Graduate, adjoining, will be rearranged, and the nurses' home in connection with the institution is to be rebuilt at a cost of \$100,000.

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.—The twentieth annual convention of the State Medical Examining and Licensing Boards was called to order at the Southern Hotel, St. Louis, Mo., by the president, Dr. A. Ravogli. After an invocation by the Rev. Stephen F. Sherman, Jr., Dr. A. H. Hamel, chairman of the local committee of arrangements, introduced Dr. Joseph Grindon, who delivered the address of welcome, which was responded to by Dr. Joseph C. Guernsey.

Dr. A. Ravogli delivered the annual address of the president, "A Plea for More Practical and Extended Clinical Instruction for Medical Students." The report of the secretary-treasurer, Dr. M. G. Motter, was read, audited and approved, showing a total of \$557.89 with a balance of \$228.08. The report of the executive council was read by Dr. N. R. Coleman, referred to a committee which commended the subject matter for its practical value to medical educators and recommended the adoption of an amendment to the constitution providing for a corresponding secretary, and the appointment of a committee to confer with a committee from the American Confederation of Reciprocating, Examining and Licensing Medical Boards on the feasibility of uniting the two bodies. According to the subsequent report of this committee, the proposed union was found to be impracticable at present. The report of the committee on clinical instruction, by Dr. Henry Beates, and that on materia medica, by Dr. M. G. Motter, were read and referred for publication.

The paper by Dr. Abraham Flexner, of the Carnegie Foundation, on "The State Boards in Relation to Medical Education," elicited a lively discussion and was the subject of considerable newspaper comment.

The symposium on "Clinical Instruction" was opened by Dr. George Dock, who said that present school conditions warrant the introduction by the boards of practical examinations; that the material is available; that their purpose should be to test the applicants' methods, and that would necessitate expert examiners. Dr. Fred C. Zapffe contributed a valuable and timely paper on the "Present Status of Clinical Instruction." Dr. J. C. Guernsey discussed the advantages of the old preceptor system; Dr. J. C. Oliver opposed the lengthening of the medical course to five years; Dr. A. F. Stephens dwelt upon the importance of post-graduate clinical work. With reference to the introduction of practical examinations by the state boards, Dr. Thomas McCrae discussed instruction in clinical medicine; Dr. A. D. Bevan, instruction in clinical surgery; Dr. C. F. Hoover, instruction in diseases of the heart and lungs; Dr. W. A. Hardaway, diseases of the skin, and

Dr. D. T. Vail, refraction. Dr. J. Coons outlined the methods of practical examinations in histology, pathology, bacteriology, urinalysis, etc.

The Board of Medical Examiners of Utah, the State Medical Board of Arkansas Medical Society, the Eclectic State Medical Board of Arkansas, and Drs. E. J. Collins, A. H. Hamel, Fred-eric Singer, Darlington Snyder, R. O. Tucker and N. P. Colwell were admitted to membership in the Confederation.

The following officers and committees were elected: President, Dr. J. C. Guernsey, Philadelphia, Pa.; first vice-president, James A. Egan, Springfield, Ill.; second vice-president, Dr. Charles A. Tuttle, New Haven, Conn.; secretary-treasurer, Dr. George H. Matson, Columbus, Ohio; assistant secretary, Dr. Darlington Snyder, Columbus, Ohio. Executive Council: Dr. N. R. Coleman, Columbus, Ohio; Dr. Edwin B. Harvey, Boston, Mass.; Dr. James A. Duncan, Toledo, Ohio; Dr. A. H. Hamel, St. Louis, Mo.; Dr. D. P. Maddox, Chester, Pa.

CERTIFIED MILK.—The primary meaning attached to the term "Certified Milk" is pure, clean milk, which qualities are certified to by the Pure Milk Commission. The commission desires to call the attention of the profession to the fact that while certified milk is of inestimable value in the feeding of infants and invalids during all seasons of the year, its use now during the hot season, when summer diarrheas play such a large part in increasing the mortality of infants, assumes an overwhelming importance. It is further desired to call attention to the fact that when the commission was called into existence some six years ago there was absolutely no safe clinical milk to be had in St. Louis. At the present time the commission has eight dairies under its supervision, seven producing certified milk, and one inspected milk, namely:

The Maple Hill Dairy, located at Roodhouse, Ill.; J. S. Hopkins & Son, proprietors. The Appleby Dairy, located at Roodhouse, Ill.; E. M. Prindle & Sons, proprietors. The Calla Lily Dairy, located at St. Jacobs, Ill.; L. A. Spies, proprietor. The Spring Hill Dairy, located at Grays Summit, Mo.; John A. Miles, proprietor. The Shields Dairy, located at Eureka, Mo.; Thos. Shields, proprietor. The Sweet Meadows Dairy, located at Crescent, Mo.; P. P. Lewis, proprietor. The Abbott Dairy, located in St. Louis County; L. F. Abbott proprietor; and the Pickel Dairy, located at Horine, Mo.; Dr. J. W. Pickel, proprietor; this is an inspected dairy and supplies milk to the Pure Milk Laboratory. The product of the Maple Hill, Appleby and Calla Lily dairies is distributed by the Union Sweet Meadow dairies is distributed by the St.

Louis Dairy Company; that of the Shields Dairy is distributed by the Keyes Farm & Dairy Company, and the Pevely Dairy Company. Mr. Abbott distributes the product of his own dairy. There are now being sold about 475 gallons of certified milk daily in St. Louis. A telephone order to any of the above distributors will insure a prompt delivery. Any infraction or violation of any of the requirements which may come to the notice of a physician will, if submitted by him to the certification committee, receive prompt attention and be speedily corrected.

The dairies are kept scrupulously clean, the process of milking is made as aseptic as possible, the milk is promptly chilled, bottled immediately and then kept continuously at a sufficiently low temperature to inhibit the growth of bacteria. The quality and purity of the milk are controlled by the regular monthly inspection of dairies by competent inspectors; examination of the herds by veterinarians, which examination includes the tuberculin test; the weekly analyses by the city chemist; the weekly bacteriologic examination by the city bacteriologist. Reports from these sources are submitted to the committee on certification, which meets once a month. If the dairy has a favorable report, the committee issues to it labels good for one month. These labels certify to the fact that the dairy is operated and the milk produced under the requirements of the St. Louis Pure Milk Commission. The term "Certified Milk" is copyrighted, and can only be used by permission of a medical milk commission. Any dairy willing to subscribe to these requirements by entering into a contract with the St. Louis Pure Milk Commission may be privileged to use the certificates.

The Commission would earnestly urge the necessity for the full support of the profession if the movement for a real betterment of our milk supply is to become effective. The question of cost should not be given undue prominence. Clean milk is expensive, and must be, but dirty milk is ultimately very much more expensive, no matter what its initial cost may be. Any further information that may be desired concerning certified milk will be cheerfully furnished by the secretary, Dr. Sam T. Bassett, 5753 Page avenue, St. Louis, Mo.

STATE BOARD OF HEALTH NEWS

The following items of interest to the profession are a part of the proceedings of the meeting of the State Board of Health, held May 23:

The license of Dr. Ernest H. Spooner, of St. Louis, was revoked for the period of one year, he having been found guilty as charged, to wit: Because of unprofessional and dishonorable conduct

in violation of his professional duties and with having been guilty of fraud, deceit and misrepresentation in the practice of medicine and surgery and in the aiding and abetting of the same in that, during 1907, Dr. Spooner entered the service and employment of the S. R. Chamlee Cancer Cure Company, located in the city of St. Louis; that while in the employment of this company, the said company willfully, unlawfully and fraudulently represented itself to the public by and through the means of, and through the medium and agency of deceptive and misleading advertisements in the daily papers, and by the mailing to the public generally, of deceptive and misleading letters, pamphlets and other printed matter and literature, wherein and whereby the said S. R. Chamlee Cancer Cure Company claimed to be the sole possessors of an absolute cure for cancer and without knife or pain.

The Board, at this same meeting, revoked the license of Dr. Theodore Hlg. of St. Louis, he having been found guilty of offering to produce an abortion. His license was revoked for the period of two years.

The license of Dr. A. H. Meyer, of St. Louis, was revoked for the period of three years, he being found guilty by the Board of producing an abortion and of offering to produce an abortion.

The license of Dr. A. M. Conway, of Columbia, was revoked by the Board for the period of ten years, he having been found guilty of writing prescriptions for whiskey, for other than medicinal purposes.

At this meeting it was resolved that the reciprocal relationship existing between Missouri and Arkansas be dissolved and that the Secretary of the Arkansas Board be so notified. The reason for the dissolution of this agreement being that Arkansas possesses three distinct boards and that it is the sense of the Missouri Board that reciprocal relationship should not exist, or in the future be entered into, with any state that has more than one board of examiners.

The following were the important transactions of the meeting held July 11:

The grading of papers of applicants who took the examination for a license to practice medicine and surgery, held in St. Louis and Kansas City, June 13, 14 and 15, resulted in showing that 144 passed and 13 failed.

Of thirteen midwives who took the examination, two passed and eleven failed.

At this meeting the board was divided into committees and instructed to visit and inspect all the state penal and eleemosynary institutions during the early part of the fall and make report, through the board, to the governor.

RESULT OF EXAMINATIONS OF APPLICANTS TO
PRACTICE MEDICINE IN MISSOURI, HELD AT
ST. LOUIS AND KANSAS CITY, JUNE
13, 14, 15, 1910

Colleges.	Number ex- amined.	Number passed.	Number failed.	Per cent. of failures.
Washington University.....	51	51	0	0
St. Louis University.....	40	40	0	0
Barnes Med. College.....	17	13	4	23.5
Univ. Med. Coll., K. C.....	16	15	1	6.25
Ensworth Medical College....	8	5	3	37.5
American Med. Coll., St. L..	4	3	1	25
College of P. & S., St. L....	4	2	2	50
Hahnemann Med. Coll., K. C.	3	3	0	0
Homeopathic Med. Coll., St. L.	1	0	1	100
Northwestern Univ. Woman's Med.	1	1	0	0
University of Nashville.....	1	1	0	0
Coll. of Med., U. of Illinois..	1	1	0	0
Mohrrey Medical College....	2	2	0	0
Harvard Medical School.....	1	1	0	0
Vanderbilt University	1	0	1	100
Woman's Med. Coll. of Pa....	1	1	0	0
Yale University	1	1	0	0
Columbia U. Coll. P. & S., N. Y.	1	1	0	0
Kansas Medical College.....	1	1	0	0
University of Kansas.....	1	1	0	0
Hosp. Coll. of Med., Ky.....	1	1	0	0
Total	157	144	13	8.28

VITAL STATISTICS

The secretary of the State Board of Health has issued a circular of information describing the value of the vital statistics law now in operation in Missouri. Physicians should be familiar with this law and its importance to the people, and the circular is printed for their information:

The Vital Statistics law enacted by the last General Assembly and approved May 6, 1909, placed Missouri in the list with eighteen other states having an adequate law for the collecting and recording of all births and deaths occurring in the state.

This provision, so wisely made, affords means for the acquirement of knowledge of inestimable value as an aid in dealing with the following chief problems, viz.:

Of public health.

Of detecting crime.

Of the establishment of the fact and cause of death in pension claims and in collecting life insurance.

Of the percentage of deaths to births.

Of claims of descent, as in affording proofs for property inheritance.

The establishment of school age.

The establishment of age in applying child labor laws.

The establishment of age of consent.

The establishment of the voting age, etc.

In public health questions, an abnormal proportion of deaths due to a particular disease in a given community of the state can only be revealed accurately by a study of the mortality statistics from that community as afforded by their collection by the bureau of vital statistics.

The state board of health, or local health officer, through this knowledge, has a basis from which to seek out the cause and apply the remedy.

An epidemic of typhoid fever existing at a point along a stream, from which the water supply of that community is derived, is detected and means of prevention applied.

An excessive death rate from tuberculosis in a community of the state will be revealed through sta-

tistics, and health authorities put in search for the detection of faulty hygiene or insanitary conditions in that section or city; and so on throughout the category of contagious and communicable diseases.

In requiring the immediate filing of a death certificate and the obtaining of a burial permit before a legal interment can occur, a valuable means for detecting crime is afforded.

In deaths surrounded by the least suspicion, the local registrar withholds a burial permit until evidence is produced by the physician who was in attendance, if there had been any, or until the proper investigation has been made by the coroner.

The requirement that a burial permit must be issued before the interment of a stillborn child, has a most wholesome deterring influence on the abortionist in the pursuit of his criminal practice.

Certificates of births and deaths, collected through the channels authorized by the state, are accepted in the courts as *prima facie* evidence in matters in which the rights of property or inheritance are in question.

The government likewise accepts them as evidence in pension claims, and life insurance companies regard this as proper evidence of the fact and cause of death. So to the public do these certificates possess the same or greater value in collecting death indemnities from insurance concerns.

Every child born is entitled to the transaction on the part of physician or parent in seeing that his birth is properly certified to and registered. This provision for protection and rights, in years to come, may prove to be of exceeding value in matters legal, social and economic.

It may be that parents are unable to provide for a child any immediate pecuniary inheritance, yet all can and should provide the filing of proof, and the many data on birth certificates, which in future years may prove to be a saving necessity to that child, and this sole evidence may be the determining factor as to many rights and privileges.

The recording of vital statistics in other and older countries has provided the compass guiding to the achievements of the medical profession and the sanitarian and has composed the chart on which the accomplishments of preventive medicine are written.

As examples of this: The oldest records of vital statistics—those of Geneva—which go back some three hundred years, show that during this time there has been an average increase in life from 21.2 to 39.7 years. In England and Wales, these statistics from 1838 to 1900 show that there has been an average increase in the duration of life from 40.8 to 45.9 years; and so on. Similar records are to be had from France, Prussia, Denmark, Sweden, etc.

But, so far as the United States is concerned, it is to be said, to our shame, that until the very recent years provision had not been made in a sufficient number of states to furnish data, at this time, to be of great value. It is, however, to be estimated that the government is now accepting statistics considered sufficiently reliable, covering some 60 per cent. of our population, and with the increasing interest the people and legislative bodies are showing in this question it is to be anticipated that the acceptable "Registration Area" will continue to show a rapid increase in extent.

We can say with much pride, however, that preventive measures brought into action by this country and revealed by vital statistics show that in the Canal Zone, when in 1908 it was put under the government sanitary control, the death rate was then 65.41 per thousand. It has been reduced so that at present it is some 24 to the thousand.

It might also be mentioned that the almost complete stamping out of yellow fever in Havana, which

has resulted from the extermination of the mosquito, was begun in 1901, and revealed by vital statistics.

Of these accomplishments we have been apprised through statistics, and we are to rely on the same source of knowledge as to encourage the progress of preventive medicine in the nation and in the state.

The law so recently put into operation in Missouri is so framed as to produce results most complete and perfect. It is true it is somewhat complex in detail, but this very complexity and extensive detail in the final solution will be productive of the most satisfactory accomplishment.

The Missouri law is what is known as the "model law," having received the approval of the United States Census Bureau, the American Medical Association, and many other societies dealing with questions of public health and with the question of statistics as the same may affect the health, property and legal rights of the people.

In the operation of this law a few new duties have been added to the physician in his professional services; to the undertaker in his duties to the dead and the family of the deceased, and to the citizen in whose family a birth or death may occur; but it is through the well-directed performance of duty that great and important accomplishments result, and we fill our niche as citizens, acting and living for public advancement and progress.

In the districting of the state, each incorporated town has been made a primary center, and wherever possible the counties have been divided into township districts, so that the state has been divided into some nine hundred primary districts with a local registrar having jurisdiction in each.

Through this extensive districting the convenience of all concerned in the execution and operation of the law has been well provided for. But little difficulty is to be encountered by any in filing certificates and in obtaining burial or removal permits.

It is particularly essential that all should know the name and address of the local registrar. In the accomplishment of this, lists of the local registrars, by counties, have been printed and distributed to the physicians and undertakers of the various counties.

On the tenth of each month local registrars make return of all birth and death certificates filed for the month previous, to the central bureau at the capital of the state. These certificates are indexed and filed and become records to be permanently preserved for the use of the public, and may be so used, either by personal inspection or by obtaining certified copies.

From these certificates statistics are compiled by townships and by cities of the various classes. By this provision, accurate information and knowledge of any and all data contained in vital statistics will be provided as concerns the minutest divisions and subdivisions of the state.

CORRESPONDENCE

UNSANITARY BAKERIES

St. Louis, August 31, 1910.

To the Editor:—I notice in THE JOURNAL, under date of August, 1910, an article on "Unsanitary Bakeries." In this article it is stated that "an inspector of the St. Louis Health Department recently discovered a bake shop in the Ghetto where conditions were 'simply nauseating,' yet the proprietor was allowed to continue

in business several weeks before a positive order to clean up or close up at once was issued against him."

I am aware that with your lack of information as to conditions surrounding the handling of these cases, it may appear to you that this department is slow or negligent in its work, but I can assure that we are up and doing all the time and that the delay which ensues in cases of this kind is a delay which is unavoidable, as we must, of course, follow the procedure laid down by law in such cases. It is necessary where an unsanitary bakery is discovered to summon the proprietor before the Board of Health for a hearing. The law compels a two weeks' notice and this we are forced to give. If the place is found to be, on the day of trial, still in a filthy condition the business is condemned and a specified time given to remedy the complaint. This time is always very short, perhaps a half day to two days, according to what must be done. If at the end of this time the nuisance is not yet abated the proprietor is prosecuted in the police court.

This mode of procedure is unquestionably very defective, yet at the present time it is all we have.

In the case of meat shops the law gives us the privilege of condemning, for good and sufficient reasons, and such condemnation acts a forfeiture of the license of that place. This law should also apply to the bakery, and there is now in the hands of the city councilor an ordinance, drawn by me, making the condemnation of a place equivalent to a forfeiture of the license.

When this bill comes up for consideration at the next meeting of the Municipal Assembly, this department would be grateful for any assistance in securing its passage. Until then we are only able to do the best we can, and I believe we are doing a great deal of good work in these cases.

Respectfully,

G. A. JORDAN, M.D.,

Asst. Health Commissioner.

SUGGESTIONS TO COUNTY SECRETARIES

To the Editor:—THE JOURNAL grows on us and we like its new features very much indeed. Now let me offer a suggestion to the secretaries of county societies, one that has worked well, given full satisfaction and brought all the doctors in line by January 1. It is this:

1. Hold elections of county society officials at the November meeting of county societies, and at that meeting correct the roster and collect all the dues for the new year, and send the dues at once to the state secretary. What is the result? All are paid up and in line for the new year, not a single delinquent or straggler to delay prompt returns in January, as provided by our state

society constitution and by-laws. The experience of ten years as secretary has proven the facts as given. It violates no law and would take a great deal of unnecessary work off the state secretary.

2. Let the county secretary keep his decks clear of rubbish and the debris of fake literature of fakes, quacks and charlatans, while the councilor and board of censors keep the society from being bothered with spurious and pseudo-applicants for membership. An ounce of preventive invasion of our ranks is worth a pound of expulsion, suspension or reprimand.

3. Let the county secretary supply the doctors in person with all the samples sent of good, pure drugs and food products which he knows to be genuine and prove to be good.

4. Let him be courteous and kind to those drug firms who prove ethical and strictly honest, and give first consideration to those who advertise in THE JOURNAL. In success there is nothing like success—the fruit of well-directed effort of the secretary. It keeps him as busy as can be, and he is paid in the gratitude and the thanks of the members, and their full attendance at regular meetings.

C. W. WATTS, M.D.,

Secretary Howard County Medical Society,

Fayette, Mo.

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY

Caldwell County Medical Society met at Braymer in July and the following papers were presented:

"Arteriosclerosis," by Dr. Tinsley Brown, Hamilton.

"What Shall We Do with the Uterus in Bilateral Involvement of the Adnexa?" by Dr. Fritz Moennighoff, Kansas City.

"Rheumatism," by Dr. C. C. Leeper, Braymer.

Discussion of vital statistics registration, opened by Dr. O. O. Meredith, Breckenridge.

Dr. Samuel G. Meredith, Cowgill, was elected a member.

On Labor Day the society will conduct an anti-tuberculosis crusade throughout the country. Popular addresses will be given by members of the society in the different towns and a strong effort made to arouse the interest of the people in preventing the spread of tuberculosis.

GEORGE W. GOINS, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

Cass County Medical Society met at Harrisonville August 4, the following members being present: Drs. Brierly, Crawford, Jerard, Overholser, Ramey, and Triplett.

Dr. M. P. Overholser read a paper on "The Obligation of Parents and the State to Protect the Rising Generation from the Infections of Prevalent Social Diseases." This paper was of special interest to the public, hence the society invited the public to attend. The paper aroused a great deal of interest, and was freely discussed by the physicians and many of the laity. A committee on Social Hygiene, composed of

the ministers of the city was appointed to circulate literature and educate young men along the ideas suggested by the paper.

There was a general discussion of the advisability of establishing a hospital at Harrisonville, and a committee was appointed to investigate the matter.

H. S. CRAWFORD, M.D., Secretary.

DAVIESS COUNTY MEDICAL SOCIETY

The Daviess County Medical Society met July 12, at the home of Dr. Dunham in Pattonsburg, with the following present: Drs. Hanna, Pitkin, Brosius, Doolin and Smith of Gallatin; Wetzel and Martin of Jameson; Songer of Jamesport; Dunham, Hedges, Parker and McClung of Pattonsburg.

After being royally entertained at dinner by Dr. and Mrs. Dunham, the meeting was called to order by the President, Dr. Wetzel.

The first paper on the program was, "Diarrhea in Infants," by Dr. M. A. Smith, a very able paper and appropriate for the season; it brought out an interesting discussion from all present.

The next paper was, "Obstetrical Experiences," by Dr. H. E. Songer, which also was generously discussed.

These were followed by the report of some very interesting cases by our president, Dr. Wetzel, and by reports from several other members.

After tendering a vote of thanks to Dr. and Mrs. Dunham for their kindness and hospitality, the society adjourned to meet in Jamesport for the meeting of October 11, at which time we have the following program:

"Influenza," by Dr. O. F. Clagett, of Jamesport.

"Cirrhosis of the Liver," by Dr. D. F. Hanna, of Gallatin.

"Treatment of Fracture of the Long Bones," by Dr. J. L. Cox, of Winston.

H. E. SONGER, M.D., Reporter.

LAFAYETTE COUNTY MEDICAL SOCIETY

The Lafayette County Medical Society met in regular session at Odessa, July 12, with Drs. J. A. Mann as chairman and W. A. Braecklein as acting secretary. The following members were present: Drs. J. A. and F. M. Mann of Wellington; Cope, Fulkerson, B. T. Payne, Roberts, and Ryland of Lexington; Braecklein and Ott of Higginsville; Clayton, Williams and Barclay, of Odessa; Harwood, of Dover; Schneider, of Concordia; Carthrae, Sr., of Corder; Fischer, of Alma. Visitors present: Drs. Mackay, Lightener, and Goodwin, of Odessa.

The applications of Drs. Mackay, of Odessa, and Kelling, of Waverly, were submitted by the committee for membership of the society and, by a suspension of the rules, they were admitted as members by acclamation.

It was moved and seconded that Dr. Nickel, of Mayview, be reinstated as a member in good standing of the society upon the payment of his 1910 dues.

The society at present has a membership of thirty-six out of a total of forty-one eligible practitioners, and it is hoped that the remainder will also become members of the society.

The next meeting will be held in Higginsville on the 9th of August.

J. G. W. FISCHER, M.D., Reporter.

MISSISSIPPI COUNTY MEDICAL SOCIETY

The Mississippi County Medical Society met in regular session, at the office of Dr. H. L. Reid, Charleston. Seven out of the nineteen members were

present. After attending to routine business the society took up the subject of typhoid fever.

Dr. W. P. Howle read an excellent paper upon this subject. While he did not attempt to present the results of original investigation, he did cover very well the treatment that can be followed in ordinary practice. The paper was well received and discussed at length by Drs. Reid and Chapman.

Dr. W. P. Howle then reported the case of a patient with a knife wound in left side, between ninth and tenth ribs, near the costal cartilage, discharging pus. The wound was made some four or five weeks ago. He asked for advice upon the proper manner of proceeding now. The general opinion favored enlarging the wound and using gentle irrigation if the drainage was not sufficient; to investigate if tuberculosis were a complication, and to use tonic treatment with liberal feeding.

Society adjourned to meet at Bertrand the first Monday night in September.

JOHN C. BOONE, M.D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY

The regular quarterly meeting of Moniteau County Medical Society was held at Tipton, July 4. The following members were present: Drs. Norman, Popejoy, Lang, Stewart, Freudenberger, Summers, Fry, Patterson, H. B. Marsh, Williams and Wilson.

Dr. Lang presented an interesting case of a fetus of about the fourth month of development, expelled at full term.

Dr. J. B. Norman is soon to locate in Oregon and the following resolutions were unanimously adopted in his behalf:

Resolved, That it is with deep regret we learn that Dr. J. B. Norman is to sever his relations with our Society and cast his lot with that of the profession of the Pacific Slope. In the departure of Dr. Norman this Society suffers an irreparable loss, as he was a tireless and indefatigable worker for the good of the medical profession and of this Society. He is a man of deep moral convictions and was ever, professionally clean.

Resolved, That we commend Dr. Norman to the medical profession of Oregon and assure them that in him they will find a man of integrity and honor and a physician with dauntless energy and marked ability.

Resolved, That a copy of these resolutions be furnished Dr. Norman and that a copy be sent the secretary of the county society in which he is to locate.

H. C. FREUDENBERGER, M.D., Secretary.

NEWTON COUNTY MEDICAL SOCIETY

The Newton County Medical Society met in regular session in the office of Dr. Sloan, Neosho, on July 12. The following program was rendered:

Report of clinical cases, by Dr. H. L. Porter, of Seneca.

Paper on "Appendicitis," by Dr. Chapman, of Diamond.

Paper on "Acute Parenchymatous Nephritis," by Dr. R. C. Lamson, of Neosho.

Paper on "Attendance and Support of the County Society," by Dr. O. J. Sloan, of Neosho.

This meeting was well attended and every member present took part in the discussions.

The success of this meeting was due to the large attendance, the interesting discussions, and especially to the excellent papers by Drs. Lamson and Chapman. After receiving three new members into the society, we adjourned to meet in the office of Dr. Sloan, in Neosho, Tuesday afternoon, August 9.

O. J. SLOAN, M.D., Secretary.

RANDOLPH COUNTY MEDICAL SOCIETY

Randolph County Medical Society met in regular session, Thursday, July 28, at the Red Cross Hospital, Moberly, as the guest of Dr. C. B. Clapp.

The following members were present: Drs. Barnhart, of Huntsville, president; Bazan, of Clark, secretary; C. B. Clapp, C. K. Dutton, Wm. Dickson, G. A. Johnson, T. A. Cottingham, O. O. Ash, G. O. Cuppaidge, all of Moberly; Alexander Clifton, Brown and Nichols, of Higbee; Adams, of Huntsville; Woods, Clark and Welch, of Salisbury. Messrs. Megee, Highlands and Shafer, of Moberly, medical students, also took part in the proceedings.

Dr. C. K. Dutton read a paper on "Atropine in the Treatment of the Eye." Talks were made by Dr. Welch of Salisbury and others present, and a very interesting exhibition made of various specimens obtained after operations at the Red Cross Hospital, including a very large fibroid obtained from a young girl; also a specimen of ruptured tubal pregnancy.

The next meeting is to be held at Huntsville, and following that, at Higbee.

G. O. CUPPAIDGE, M.D., Reporter.

BOOK REVIEWS

THE PRACTITIONER'S CASE BOOK: For Recording and Preserving Clinical Histories. Prepared and Arranged by the Editorial Staff of the Interstate Medical Journal. Imperial octavo; 286 pages; full cloth binding. Printed on bond writing paper. With 80 colored anatomical charts (detachable), showing outlines of body and skeleton in light red and the viscera in pale blue. Index for listing patients, both by name and case number. St. Louis: Interstate Medical Journal Co. 1910. Price, postpaid, \$2.

This book is well arranged for purposes of case records. Physicians have in the past been too negligent of the very important practice of keeping intelligent and accurate records of their cases, a fact that has been strongly emphasized in our State Association since the adoption of the plan to defend members in suits for malpractice. A good, clear record of a case makes one of the strongest points of favorable evidence for the physician under such circumstances, and is not infrequently of itself sufficient to prevent the prosecution of a threatened suit.

The history sheets in this book are complete enough to cover all cases encountered in general practice,

since they provide spaces for personal and family history, record of present trouble, subjective symptoms, results of laboratory examinations, and full details of a careful physical examination, followed by space for recording diagnosis (provisional or definite) and prognosis, with a brief outline of the information given to the patient or to the family of the patient. Following this is space for details of later developments of the case.

There is an excellent series of detachable anatomical diagrams printed in light colors so that pictorial records of fractures, dislocations, cavities, areas of dullness, etc., may be made by pencil or pen.

MANUAL OF CHEMISTRY. Ninth Edition. By W. Simon, Ph.D., M.D. Lea & Febiger, Publishers, Philadelphia and New York.

This book is a vade-mecum for the student desiring a practical and easy course in analytical and physiological chemistry and pharmacy. We find in this edition much improvement in the subject on the laws and theories of inorganic chemistry, and the introduction of many new compounds of medical interest in the part on organic chemistry—just the needed information desired and looked for by the student.

The subject is divided into seven parts, so that the book is one of ready reference for the busy doctor as well as for the chemist and pharmacist.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By Arthur A. Edwards, A.M., M.D. Lea & Febiger, Publishers, Philadelphia and New York.

This edition, just out, is one of the best volumes on practice now before the medical profession.

The subdivision in sections is arranged with such completeness and conciseness that the busy general practitioner may refer to the subjects and renew his knowledge on infection, circulation, respiratory organs, ductless gland and other important viscera as sectionized and referring to general disease, with little loss of valuable time.

The author deals with all subjects on internal medicine in a very able manner, giving special attention to etiology and pathology, and the latest improved methods of treatment for typhoid fever, pneumonia, tuberculosis, rheumatism and diseases of the nervous system.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

OCTOBER, 1910

Number 4

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION
COMMITTEE { M. B. CLOPTON, M.D., Chairman
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M. C. SHELTON, M.D.

ORIGINAL ARTICLES

ADDRESS ON PUBLIC HEALTH

B. S. WARREN, M.D.

Passed Assistant Surgeon, U. S. P. H. and M.-H. S.
ST. LOUIS, MO.

One of the strongest forces observed in nature is the preservation of original types and the evolution of higher types. In this it is wonderful how careful she has been of the type and how careless of the individual. In this process of evolution through the ages, with all the opposing forces, the fight for existence has left man in every age stronger and better. He may have lost some of his primitive strength and prehensile tail. This, however, has been more than compensated by his progress in civilization and inventive genius. Wars, floods and pestilence have, at times, seemed almost to exterminate the type or destroy all progress; empires have risen and fallen; civilizations have flourished and perished, leaving only traces of their existence, but each cycle of existence has left him farther on the way.

Strange to relate, in all this fight the greatest opposing force to all progress has been man himself. Evidence of this is observed in all history, from the most ancient to the most modern. The cause may be due to his early environment, when he was a beast of prey, and this instinct may still cling to him in spite of his veneer of civilization. Man may have ceased to club his fellow over the head for an especially fine cocoanut, but he will work him in sweatshops, house him in unsanitary tenements, herd him in death-dealing lodging houses, give him hardly a living wage, and exact the highest prices the traffic will bear.

The bloodiest wars of the dark ages left some of the strongest of the race for seed that, later, developed a new and higher type. To-day all men, women and children are menaced by envi-

ronment and resulting disease. Such a menace the higher and cleaner type of the race, living in sanitary places, cannot escape, for there is no fortification that can protect them from the inroads of disease germs that have their breeding places in the filthy homes of the slums. At present investigators have difficulty in finding any free from disease and a truly normal type.

The effect of disease directly on the individual and the blighting influence on posterity is so tremendous in its damaging results that unless something is done to prevent further inroads the type will be so blighted that centuries of progress will be lost.

Of course it may be said that man will in time develop an immunity to all infection. This may be true, but why await such action when we have other remedies, time-saving and less expensive? It may be that a few centuries is nothing to Him to whom a thousand years is but a single day, but why let another civilization decline while in our progress means have been provided to prevent it?

Sanitary science has already pointed out the effects of bad housing, poor food, impure air and overcrowding, with low moral influence in weakening man both physically and mentally, so that he succumbs and is an easy victim of the spirochete pallida, bacillus typhosus, tubercle bacillus and others. The practical application of this knowledge by the enactment of necessary laws with just enforcement is the need.

Methods of legal control must keep pace with sanitary science. The upper and middle classes may be willing, either from selfishness, ignorance or indifference, to allow matters to remain as at present, but when they realize through proper education that they are not fortified against disease bred in the slums; that, in fact, they are more susceptible because they have not the relative immunity that is conferred by life in these unsanitary places, then, and not till then, will suitable legislation be obtained.

Public health workers must convince the better class that the only present known method for self-

* Read in the General Session, Missouri State Medical Association, Hannibal, May, 1910.

protection is the elimination of such disease-breeding places from our civilization.

When plague, cholera, smallpox, typhus fever and yellow fever threatened, the organization of public health forces was begun, and these diseases are now under practical control. They swept over the nations of the earth, causing such deadly epidemics, instilling such a dread among the people, that men and money and laws for organization were not wanting. Even to-day the announcement of the presence of one of these diseases causes such a panic that business is almost paralyzed, in spite of the fact that we can surely control them.

It is in this stage of evolution that we find our present United States Public Health Service, organized and ready to combat these diseases, but only in its formative stage, for the prevention of the more common types of preventable diseases.

The development of a public health service from a marine hospital service seems strange to a casual observer, but, upon closer observation, this does not appear so strange, but rather natural.

In the early days the doctors of the marine hospital service, in attending the sailors, observed the epidemic diseases as they occurred among them. Just as, at that time, the sail vessels were the common carriers of the world's commerce, they were, also, the common carriers of epidemic diseases. The doctors observed this, began to study the conditions, and, naturally, thought of quarantine as the only remedy. Being the first experts on the ground, the enforcement of this quarantine fell to their lot.

At first the hospitals were confined to the Atlantic coast, but, as this great western country developed, the marine hospital service moved with the shipping up the rivers to the lakes, occupying the principal river and lake ports; then moved on to the Pacific coast; thus, when the railroad came to take its place as a common carrier, the marine hospital service was established throughout the United States and had accumulated knowledge of epidemic diseases and practical methods of combating them.

About this time the Civil War came on. Everything was unsettled and the hospitals were taken over by the military authorities of both sides for use as military hospitals. After the war the reorganization of the service was taken up, and in 1871 a law was passed placing all the hospitals under one head—a supervising surgeon, stationed at Washington.

John M. Woodworth was the first surgeon-general, and it was not long before he began to turn his attention to public health matters. He issued his first circular on this subject in 1874. Additional circulars were added until, in 1878, Congress passed a law turning over national quarantine matters to the Service. This law, however,

carried no appropriation, so very little was done. In 1879 Congress created the National Board of Health and turned over quarantine and public health matters to it, making a large appropriation. For four years this continued, when the board lapsed by limitation of the act.

In 1883 the Marine Hospital Service again took charge and began to construct a quarantine service and to acquire a public health function. In 1888 Congress passed an act to perfect the quarantine service, and carried with it an appropriation for building several stations. Other laws were enacted from time to time, adding further duties to the Service. Among these may be mentioned the act of 1890 to prevent the introduction of contagious diseases from one state into another; the acts of 1893 granted additional quarantine powers and imposed additional duties upon the Service, also provided for the examination of alien immigrants by officers of the Service; the act of 1899 authorized the appointment of a commission for investigation of leprosy; the act of 1901 appropriated for a laboratory for the investigation of infectious and contagious diseases and other matters pertaining to the public health; and the act of 1902, to increase the efficiency of the Service, changed its name and created a Public Health Bureau.

This gives, briefly, the stages in the evolution of the Public Health Service, and, to quote from Surgeon-General Wyman's last annual report:

"It would seem that Congress has established a Public Health Bureau with a broad foundation, but, more than this, it has provided a service whose personnel consists of trained medical and scientific officers devoted only to the interest of the public health."

THE PERSONNEL.

When the Service was established, in 1798, and the first hospital built at Norfolk, the officers were appointed from among the local physicians of the city wherever the hospitals were located; but when the Service was reorganized, in 1871, examinations were required and the officers were appointed to the general service. In 1889 a law was passed regulating this, and the officers were commissioned by the President.

There are now 128 commissioned officers, 5 special scientists in the hygiene laboratory, 279 acting assistant surgeons, 45 pharmacists and 1,047 employees—making 409 medical officers in all.

QUARANTINE.

The Service now operates the quarantine stations for all the Atlantic, Pacific and gulf coasts, except Boston, New York, Baltimore and Texas. (A site has been selected at Galveston, Texas.) The Service maintains the same quarantine system for the Philippines, Porto Rico, the Hawaiian Islands and Panama.

To do this there are 44 domestic and 22 insular stations under control of the Service officers. As aids to this Service officers are detailed to the fruit ports of South and Central America and Cuba, and of the principal ports of Japan and China, and one each at Calcutta and Naples, and the consuls at all the foreign ports are required to report the presence of any quarantinable disease and issue bills of health to ships departing for the United States ports.

The ports of Boston, New York, Baltimore and Texas are subject to inspection by the Service and have to enforce the national quarantine regulations. All the stations are equipped with everything that may be required for the proper administration of the quarantine necessary at that port, and any vessel that may arrive can be handled at short notice for any of the infectious diseases, the sick sent to hospitals, those exposed isolated, and the vessel disinfected and allowed to enter with very little delay, the object being the least possible interference to commerce consistent with safe methods as now recognized by recent scientific investigations. Quarantine has thus become a factor in the development of commerce instead of a forty days' delay, as the derivation of the word implies.

Regulations are fixed by the department for the government of all quarantines, including state and municipal stations. Under these regulations a ship comes under the observation of an officer of the government at her port of departure, where, before her bill of health is issued by the consular officer, certain requirements as to cargo and sanitary condition of the ship must be complied with. In some instances this necessitates a disinfection. At sea she must live up to required sanitary standards and upon her arrival be inspected by a medical officer before she is given pratique, and this is not given if there is any danger of her carrying an infectious disease into her port of entry.

From this it will be realized that the ramifications of the quarantine service extend throughout the world, and it would hardly be possible for any vessel to arrive at any port of the United States from an infected port without notice of such infection reaching her port of arrival ahead of her and the medical officer in charge of her inspection knowing it before he boards her.

HEALTH BULLETINS AND BULLETINS OF LABORATORY.

In the interest of the public health and quarantine service the bureau publishes weekly reports of the health conditions of the world, as reported by the state and municipal health authorities, United States consuls and the Service officers wherever stationed. These reports contain the morbidity and mortality statistics of the states and cities of the United States, the mor-

tality statistics of foreign cities and countries, tables of epidemic diseases, wherever located, and reports of the public health work of the Service; also any important discoveries or investigations directly bearing on public health matters.

These reports are sent to all quarantine stations, officers of the Service, state and municipal health officers, and other sanitarians. Wherever anything of a special character, such as a report on the prophylactic value of vaccination or plague investigation, is published, reprints are made for distribution into the field of their greatest usefulness. In this way the bureau is carrying on a continual campaign of education on some subject.

HYGIENIC LABORATORY.

One of the most important institutions of the Service is the laboratory for the investigation of contagious and infectious diseases and other matters pertaining to the public health.

The work of the laboratory is distributed among four divisions, each with an expert chief, and a director over all. The latter is aided in planning the work by an advisory board of renowned laboratory men, and all are under the direction of the surgeon-general. The result of the work is published in bulletins.

It would be impossible in a paper like this to tell of all the work—or even to enumerate it. That of examining vaccines, serums and allied products for purity and potency probably appeals more directly to the general profession. An officer inspects the laboratories where these products are manufactured, and if the establishment is not up to the standard required by the regulations fixed under the provisions of the act of July 1, 1902, the license is not granted; or, if the license has already been issued, notice is given that it will be revoked if the defect is not remedied. In addition, samples are bought in the open market and examined in the laboratory for purity and potency. Standards of strength have been established by the laboratory for several of these.

IMMIGRANT INSPECTOR.

Every immigrant must be examined by an officer of this Service before he is landed. The magnitude of this work can hardly be realized until it is explained that about one million immigrants were examined by the Service representatives last year, and fourteen thousand five hundred rejected owing to physical or mental defects. There are engaged in this work sixty-four medical officers. Where possible these immigrants are examined at the port of departure by an officer of this Service, but re-examined again on their arrival in this country.

This examination is for the exclusion of those who are liable to become public charges, and those suffering from dangerous contagious diseases, in this way conserving the public health as

well as preventing the landing of a large number of sick and disabled aliens who would very soon fill up the charitable institutions of this country.

MARINE HOSPITALS.

The Service owns and operates twenty-one marine hospitals and maintains 183 relief stations where the beneficiaries of the Service are treated. The beneficiaries of the Service are seamen of the United States merchant marine, officers and crews of the Revenue Cutter Service and the Light House Establishment, seamen of vessels of the Engineer Corps of the Army, and keepers and crews of the Life Saving Service.

Last year over fifty-four thousand patients were treated at the various stations, besides a large number of physical examinations made for the various government services.

This medical and surgical work in the hospitals, together with the opportunities for post-graduate work afforded in the large cities, serves to keep the officers abreast of the progress made in the profession. On the other hand, if the Service was purely sanitary and quarantine in its functions the officers would soon grow rusty in general medicine and lose that skill in diagnosis which is always needed in their work.

These stations are located in thirty-four different states, the District of Columbia, Alaska, the Philippines, Porto Rico, Panama and the Hawaiian Islands. Seven officers are stationed on revenue cutters that cruise in Atlantic and Pacific waters.

This gives an idea of the scope of the Service. With its officers scattered over the globe, together with the consular reports from all the principal cities of the world, it is prepared to carry on investigations of any of the problems relating to public health matters of any nature or locality. Not only this, but, at a moment's notice, the surgeon-general is prepared to send to any part of the United States a number of trained sanitarians and laboratory experts to begin any kind of scientific campaign against any epidemic disease.

This description of the personnel, equipment and various duties of the Service gives a fair idea of its preparedness.

SANITARY CONFERENCES.

Under the Act of July 1, 1902, the surgeon-general is authorized to call an annual conference of the representatives of the state boards of health. Eight of these conferences have been held, and, at the last, twenty-six states and the District of Columbia were represented. Also, one special plague conference and one quarantine conference have been called by the surgeon-general.

This brings together the health authorities; they become acquainted, have greater confidence in each other and direct their efforts along the

same lines. The beneficial results are seen in the work at New Orleans and San Francisco at the present time, where national officers received and continue to receive the hearty support of all local authorities. Contrast this with the condition of affairs that obtained in San Francisco in 1900.

YELLOW FEVER.

In considering the work on special diseases the first one that comes to mind is yellow fever. It has probably brought the Service more prominently before the public eye than any other one thing, and the work on prevention of this disease led to the creation of a Public Health Service of the Marine Hospital Service.

The first annual reports contain articles on this subject and the first quarantine work was done to prevent the importation of this disease into the southern states. Since 1883 every epidemic has found the Service doing what it could to prevent its further spread, and several of the officers have sacrificed their lives in this duty.

A decided victory over this disease in the United States was not won until 1905, at New Orleans, and that was, indeed, a decided victory, for, as is well known, it had gained a foothold in that city by the middle of July of that year, and where it began early in time past it always spread in spite of all efforts.

The work of the Service, with Surgeon White in charge at New Orleans, is well known. He assumed entire charge of the work of eradication on August 6, and the week following over four hundred cases were reported; one month later the number had dropped to two hundred a week, and on October 26 the epidemic was over and the President visited the city. Twenty-four commissioned officers were sent by the surgeon-general into New Orleans and twenty-eight acting assistant surgeons were appointed. The United States Weather Bureau reported for that year its first light frost on December 4, so you can judge how long the epidemic would have raged.

The magnitude of this work may be conceived from a summary of what was done.

Population of New Orleans.....	325,000
Total area of the city, square miles.....	196
Area actually occupied, square miles.....	44
Total number of cases of yellow fever.....	3,404
Total number of deaths from yellow fever.....	452
Total number of house to house inspections.....	269,128
Total number of rooms disinfected.....	55,151
Total number of miles of gutter salted.....	753
Total number of cisterns screened and oiled.....	68,000
Total number of cars fumigated (freight)....	33,565
Total number of pounds of salt used in gutter.....	2,998,000
Total number of gallons of oil used in cisterns and gutters.....	67,375
Total number of pounds of sulphur used....	448,000
Total number of pounds of pyrethrum used..	5,000
Total number of officers employed at one time	73
Total number of men employed at one time..	1,323

PLAGUE.

Plague reappeared in San Francisco in 1907, a little over three years after the last case of the epidemic which began in 1900. The success of the Service in suppressing that outbreak was so decided that no opposition has been encountered at this time. As the first cases appeared along the water front, an outgoing quarantine was immediately put on by the Service and all outward bound vessels were fumigated for rats, and at all domestic ports on the Pacific vessels from San Francisco were inspected and redisinfecting for rats where necessary.

The work of eradication was at first undertaken by the local authorities, but on Sept. 4, 1907, a request was made to the President by the mayor for the federal government to take charge. The surgeon-general was therefore instructed by the President and secretary to comply with the request. An officer who was acting as sanitary director of the Jamestown Exposition was immediately sent to take charge, and a corps of eight commissioned officers were ordered to report to him for duty and he was authorized to appoint local physicians as acting assistant surgeons to assist. Laborers were employed and the organization completed for a long campaign against the disease, for from its mode of propagation by fleas and rats the fight was necessarily a long one—especially so in this case, as the foci of infection were widely scattered.

DESTRUCTION OF RATS AT SAN FRANCISCO.

Poisons placed	4,781,135
Rats trapped	146,809
Rats found dead.....	9,250
Rats examined bacteriologically.....	93,558
Ground squirrels examined bacteriologically.....	3,826
Rats found plague infected.....	4
Ground squirrels found plague infected.....	42

DESTRUCTION OF RAT REFUGE.

Reconstruction of yards, basements, passageways, etc.	64,174
Destruction of rat food (inspection of premises, installation of garbage cans, concreting of yards, etc.).....	411,385

On March 31, 1909, the successful campaign was brought to a close. San Francisco continues the building of ratproof walls, houses, etc., in order to prevent future outbreaks.

LEPROSY.

In 1899 the Service, through the Leprosy Commission, began the investigation of leprosy. As a result of the report of this commission Congress passed an act appropriating for a permanent investigation station at Molokai, Hawaii. This station has been completed and the director and his assistants are in charge. Bulletins relative to progress of investigation are issued from time to time.

CHOLERA.

At present in the United States cholera is only of interest from a quarantine standpoint, but it is present in the Philippines, and Service officers stationed there are engaged in the problem of its suppression and prevention of spread.

This concludes a description of the Service work on epidemic diseases and leaves for consideration those diseases which are of more general interest and of vastly more importance because they are always present in nearly every locality and are claiming their tens of thousands where the above named diseases claim only their thousands.

If the United States Public Health Service could eradicate tuberculosis and typhoid fever in the United States, as it did yellow fever in New Orleans in 1905, and prevent its reintroduction by quarantine service, the resulting benefit would be beyond computation.

TUBERCULOSIS.

In its work on tuberculosis the Service is handicapped by the lack of authority and special appropriations. At the sanitarium at Fort Stanton, N. M., a large number of beneficiaries of the Service are being treated and a great deal of valuable data is being collected from the results obtained. The hygienic laboratory is conducting special investigations on the subject.

TYPHOID FEVER.

During the past three years a board of officers has been making an intensive study of the prevalence of typhoid fever in the District of Columbia. The character of this study in an endemic center like Washington has been so thorough that it has greatly added to our knowledge of the disease, and the plan has been followed by other cities.

This investigation in Washington presents an especially difficult problem from the fact that the disease continued to occur without any apparent reduction after an expensive slow-sand filtration plant had been constructed. The results of this study have been published in three bulletins for distribution among public health workers.

HOOKWORM.

The investigation into the prevalence of hookworm in the South by Dr. Stiles has proved beyond a reasonable doubt that the disease causes incalculable loss to that section. The results of further investigation by representatives of Mr. Rockefeller were so positive that he donated \$1,000,000 to aid in the work of eradicating the disease. This investment of \$1,000,000 will in the course of a few years save hundreds of millions to the South by increasing the producing capacity of such a large number of its citizens.

PELLAGRA.

The Service, through a board of officers of which Dr. Lavinder is a member, is now investigating into the cause, prevalence and methods of control of pellagra.

MILK.

The investigation by the typhoid fever commission brought up the question of milk and milk supply, and the President and secretary directed the surgeon-general to invite the coöperation of the Bureau of Animal Industry and Chemistry, of the Department of Agriculture, in the investigation of milk from the farm to the consumer, in relation to public health. This investigation was so extensive and thorough that it has proved to be of value to all the large cities in the United States, and two editions of the laboratory bulletin publishing the result have been exhausted.

This illustrates the advantage of team-work in the Public Health bureaus.

The foregoing is a brief outline of what the United States Public Health Service has done and is doing. It seems small when we consider the field that lies almost untouched before us. Sanitary science in its progress has demonstrated the wonderful possibilities that await the public health workers. Still we find an apathy on the part of the medical profession and the general public. The public is ignorant of the wonderful possibilities and is not inclined to study the situation, satisfying itself with the opinion either that the subject is too technical for its comprehension or that it is the destiny of the race, and that disease and death are nature's methods of selecting the fittest; or, again, that ignorance, vice, filth and poverty have always existed and that it is useless to make any effort toward betterment.

The medical profession is either too busy curing the disease or, through a feeling that publicity is not strictly ethical, fails to tell the public in a clear way of the existing bad conditions and the remedies therefor.

In the meantime five hundred thousand are dying every year in the United States from strictly preventable diseases, like tuberculosis, typhoid, malaria, diphtheria, scarlet fever, measles, and infantile diseases, while three million suffer with preventable diseases that do not result fatally.

Think of the enormous loss in wealth to the nation. A low estimate of this annual loss is \$1,500,000,000. Think of the untold suffering and sorrow that can never be estimated in billions of gold.

The first step in this work is education of the public as to this preventable loss. In this we find other workers in the field; social and economic workers, sanitary engineers, philanthropists and others are beginning to realize what can

be done, and they have now begun to organize for the relief. The doctor must bestir himself and enter the field; if not, he will find his place taken. This should not be, because the doctor stands out clearly as the one most fitted for this work. He enters the homes of all classes in the time when they are most likely to listen to teaching on this subject. The work of education should not, however, be confined to the family. Doctors should qualify themselves with apt illustrations on the subject and seek favorable opportunities for talking to the public. Judicious use of the newspapers should not be discountenanced. They should seek opportunities for addressing schools, factory employes, members of clubs, lodges, churches, or any public assembly where suitable audiences may be found. Such work should not be confined to the cities; villages and small country towns all have their doctors, who could and should take part in this campaign. Suppose it does bring the doctor into the limelight; if good can be accomplished thereby he should make the sacrifice.

ORGANIZATION OF HEALTH FORCES.

The practice of preventive medicine has now become almost as much of a specialty as any of the other fields of medicine. For this reason, in selecting men for federal, state, county and municipal health officials, efficiency should be the only standard and all politics should be eliminated. The doctor should not weakly suffer such position to be forced upon him unless he is qualified or is willing to qualify himself before entering upon active duties of his office. He should remember that the duties of such a position are such that it disqualifies him for private practice, and often the execution of the regulations of his department bring him into conflict with powerful interests. For these reasons he should be given a life position, subject to efficiency and good moral conduct, so that consideration of political exigencies will not warp his judgment or influence the execution of the duties of his office.

The organization of all health departments should be divorced from party and personal politics.

The surgeon-general has drawn a bill providing for a school for health officers—national, state, county and town. In this school he proposes to train all duly appointed or elected health officials. Such a school would be of inestimable value in bringing about closer relationship between these officials, binding them together and coördinating their efforts as no other agency could do.

NATIONAL ORGANIZATION.

The greater epidemic diseases—like cholera, yellow fever, smallpox, typhus fever and plague—are being successfully managed by the present legal machinery. It is the more common and

widely spread preventable diseases—like tuberculosis and typhoid—on which all health departments must concentrate their efforts. It is just here that the national organization is weakest in legal machinery for effective control. The question of constitutional authority arises. The tendency of the times is to concentration of more and more power in the federal government, and the disposition on the part of states to consent, because it relieves the state of the expense and responsibility. Such a feeling is not to be fostered, as it weakens the state government—especially in health affairs. On the other hand, some states are too jealous of "state's rights" and would hamper effective work by the national health department.

Extremes should be avoided. There are some problems of interstate sanitation which can best be turned over to the federal government. There are some that should be worked out together. The discussion of one of these will serve to illustrate the necessity for a strong federal health department—not to do the work of any state health organization—but to do efficiently what cannot be done by the state except by costly methods and frequent appeals to the United States courts.

POLLUTION OF INTERSTATE WATER SUPPLY.

By a decision of the United States Supreme Court the federal authority is the only recourse the state has to protect itself against the pollution of interstate water supplies by other states. To obviate the necessity of appealing to the United States court in every new case, appropriate laws should be passed providing proper methods for legal control through the United States Public Health Service. The question of pollution of water supplies has become a serious one. At present the waters of Lake Michigan are so badly contaminated that there is constant danger to every city located along its borders. The typhoid death rate among these cities is high—higher than the American average, some being as high as ninety to one hundred and forty per hundred thousand. The waters of Lake Michigan are fresh and more dangerous than salt water. They are used for navigation, sewage and drinking purposes. The intakes for the water supplies are used as steering points by navigators. As a result ships in passing in and out of these cities constantly contaminate the intake areas with sewage.

The waters of Niagara River are so badly contaminated that toilet paper is found in the drinking water of the city of Niagara Falls from contamination by sewage from Buffalo.

The necessity is not remote and should receive immediate attention.

The waters of Michigan and Niagara are United States territory and the problems are liable to become international. Clearly this is

proper work for a national department of public health; under our present system very little can be done.

Numerous other duties of similar nature should be receiving the attention of a national department of public health. On this account the President has recommended that all the United States public health agencies be brought together under one head, that duplication of work be avoided, and sufficient authority be granted for investigation of sanitary problems and the legal control of interstate health affairs.

STATE HEALTH DEPARTMENTS.

As a rule state health departments are not lacking in authority for legal control in the state. In most states, however, the work is chiefly advisory unless there is something of an unusual nature—like an epidemic of smallpox. The necessity for activity in epidemics, like cholera, smallpox, yellow fever, etc., is secondary to what could be accomplished through active work with the common preventable diseases. The directions for such activity are numerous.

TYPHOID.

Why not organize a traveling staff and laboratory to fight typhoid in a rational way? It is, relatively speaking, a rural disease, occurring more in proportion to population in the country districts. Such a staff could go to the scene of each outbreak and work with the local doctors, assisting by laboratory examination in finding mild and ambulant cases; could help to educate the families in matters of prevention, do the final disinfecting and investigate sources of infection.

This plan is not ideal and the cost is not prohibitive. Such a procedure has been inaugurated in Germany.

There are a number of small villages in nearly every state that have outbreaks every season. One or two of these could be visited each season and the cause located and removed.

COUNTY AND MUNICIPAL HEALTH DEPARTMENTS.

In some states the position of county health officer is held by some busy practitioner who has not time for any of the duties of his office, and, if he did have the time, as a rule he is not qualified for the simplest. The pay of such officials is small and the tenure of office uncertain. In the future this is going to be changed. The field of usefulness is too great to be neglected. He is nearer the people and his work is with the people in coöperation with higher health authorities and the family physician.

Among the many duties which may especially receive his attention are child and school hygiene, hygiene of all county institutions, local conditions that influence unfavorably the health of the community, and preventable diseases of every nature.

Some states are organizing societies for health officers. This is an excellent plan, as it coördinates their work and by the interchange of ideas promotes the efficiency of all. It would add to the benefit if such societies would invite the membership of the national health officials located within the state to share in their deliberations.

The municipal health departments of the cities are usually very well organized for control of epidemics like scarlet fever, diphtheria, smallpox, etc., but in the fight against tuberculosis—a disease especially prevalent in the crowded slums and tenements and cheap lodging houses—they are usually helpless or indifferent. As yet they have not usually exercised their power, which is great under our constitution. They do not seem to grasp the idea that the property owner is not free in the exercise of his property rights when such action on his part is a menace to the health of the community, or to the individuals of the community. Under this authority a fearless health officer who had a life tenure of office could clean up the city and compel every owner of unsanitary buildings to put them in sanitary condition, or cease renting them so long as they are a menace to their occupants and, through their occupants, to the health of the whole community. He could regulate the cheap lodging house so that none could be conducted except in buildings properly lighted, heated and ventilated, and under restrictions which would prevent overcrowding.

The plan of organizing and coördinating the health departments—national, state, county and town—is not a new one, but for some reason it is slow of accomplishment. Nothing can be done without efficient organization. The field is large enough for all, there is work for all, and working in harmony for one common end should bring wonderful results.

The time has come for action. Sanitary science has shown the way and we are delinquent if we fail to follow. The time is short and there is much that should be done. The call comes from the people, from the unborn millions crying for protection from the great blight of disease. Shall we heed that call or leave it to be answered by future generations who may more fully realize that they are "their brother's keeper"?

THE CLINICAL SIGNIFICANCE OF EPIGASTRIC SYMPTOMS*

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Although we must now recognize that 50 to 60 per cent. of lesions occurring in the epigastric region are amenable only to surgical treatment,

yet we are compelled to admit that less than 5 per cent. reaches the hands of the surgeon, and then too late to do anything but palliative surgery. The reason for this is obvious. The general practitioner or the stomach specialist, as the case may be, at least those who see the case first, fail to appreciate the early symptoms, or they yield to a tentative or palliative plan of treatment, waiting for classical symptoms as laid down in many text-books; the result is a loss forever of the period in which well directed and properly applied surgery might accomplish much. He who first sees the case, then, is the one upon whom results largely depend. With such a conception of the subject, we have attempted to call attention to but a few of the more noteworthy symptoms of epigastric lesions, hoping thereby to stimulate a greater interest in their surgical aspect.

For those who fail to appreciate the clinical picture early the surgeon cannot hope to give satisfaction or continue long to do their work. Until recent years—or what we might term the surgical era—and even now in most instances, it has been the custom to treat, largely or wholly, all conditions manifesting in or near the epigastrium, with perhaps one exception, viz., cases of well marked gall-stone colic. The reason for the neglect of this region surgically was not due to a lack of anatomical or pathological knowledge, but an inability to differentiate symptoms occurring in various organs and locations, so interdependent were they upon each other. It was easier to treat medically and, in many instances, successfully, and, moreover, this region had been surgically invaded so infrequently for deferred pathological conditions, and with unsatisfactory results, that this territory came to be one of the nontangere points.

True it is that surgery of this region has not become so well understood that the average surgeon should undertake the operations here often required, special or thoroughly experienced abdominal surgeons alone being those to whom such work should be relegated. No surgical diseases, as we assume most affections of this quarter are, require the combined judgment of physician and surgeon as do these. The physician is supposed to possess the greater degree of knowledge of the physiological processes and possibly the pathology which, when supplemented by surgical judgment, places those interested upon the most intelligent basis for action. So perfected have the methods of diagnosis now become that it is not regarded with favor when one attempts to cover up a lack of knowledge or an obscurity of manifestations by the term neurosis, which is at best very indefinite.

Recent experiences and observations suggest that when any doubt obtains as to the nature of these lesions, after a careful clinical history has

* Read in the General Session, Missouri State Medical Association, Hannibal, May 3, 1910.

been taken and well weighed (the most important feature in the diagnosis of these lesions), coupled with the physical and pathological findings, an exploratory operation should be done to demonstrate the real condition. While an operation may be instituted for exploratory purposes, it may end in a curative process if done early and before too extensive destructive processes have taken place. Surgical intervention should not here, in the presence of possibly grave lesions, be made a *dernier resort*. To be serviceable such procedure should be undertaken while the subject is yet able to withstand a considerable operation if need be.

While we recognize in surgical intervention by far the most serviceable treatment for many of these cases, it is of far greater importance that surgical procedures shall be preceded with most painstaking differentiation, to the point at least of being able to say that a given case is surgical or palliative only. This point, as we have indicated, is not always possible by means short of an exploratory operation, which in itself should not entail additional danger. In cancer of the stomach, for example, we know that early it is a local disease and amenable to surgical treatment if then attacked, at least in a certain per cent. of cases, dependent somewhat upon the location. Emphasis is given to this statement of the need of active efforts in its detection when we recall that nine thousand deaths occurred from cancer of the stomach in 1900 in the United States alone, and that few were operated. Furthermore, we find that cancer of the stomach is one-fourth more common than cancer of the uterus, and yet operations for removal of the uterus are more frequent although more inaccessible, and the operation of hysterectomy more difficult of execution than operations upon the stomach, and probably gives less favorable results.

We have referred thus far particularly to cancer of the stomach as a surgical disease of great frequency; indeed, we know that it is in no sense a medical disease, and so likewise we might say of a large per cent. of gastric and duodenal ulcers, diseases of the pancreas, gall-bladder and obstructions of the ducts, all of which manifest disturbances in the epigastric region requiring differentiation. If we wait for or depend wholly upon text-books, at least in some instances, for the so-called classical symptoms we shall probably make few early diagnoses of cancer, as such descriptions refer not to the early manifestations but to the later results of the process in operation. Most of the cases of gall-stones which we see have been subjected to more or less medical treatment for supposed stomach trouble, indigestion, dyspepsia, and liver trouble—early symptoms of cancer also, which they all possess in common—and yet it is rare to find a case of gall-stones that does not suffer all the time, or at times, with symptoms referable only to gall-

stones, though they may not be of a well pronounced character. It is true these cases do suffer from dyspepsia, flatulency, constipation and an uneven appetite, yet upon close observation these conditions bear no definite relation to the kind or quantity of food. Gall-stone cases nearly all complain, when interrogated, of a constriction in the region of the epigastrium. In the more aggravated cases there may be tenderness in the epigastrium, or more particularly under the ninth rib. Jaundice may or may not be present, dependent upon the patency of the ducts. Some stomach disturbances, as nausea and vomiting, may occur; also chills, with or without temperature. Pathological laboratory examination yields little information save in a negative degree. Here alone must one depend upon the clinical picture, and so we may say of nearly all these lesions occurring in the epigastric region, physical examinations even lending but little assistance.

The differentiation of the various lesions here found is extremely perplexing, requiring the most careful correlation of a well-taken history. Symptoms that might be ascribed to various diseases, associated, as they often are, with the same manifestations, are only isolated by observing the time of the occurrence in regard to the ingestion of food: as, for example, a peptic ulcer gives pain in one hour or less after eating, duodenal ulcer in one to four hours. The pain in gall-stones is independent of eating and is not modified by taking food, as may be the case in gastric ulcers; moreover, it has not the regularity of manifestations after eating, but occurs at irregular periods, yet often presenting well marked periodicity. The location of the pain is in the epigastrium, as in gastric ulcer, but has a wider range, extending to the right costal arch and scapular region. It should be noted that gall-stone pain is more sudden and paroxysmal than that of gastric ulcer. If gall-stone pain is constant in the epigastrium it is due probably to duct obstruction or an inflammation of the gall-bladder, and will then be more difficult of differentiation from gastric disturbances not attended with bleeding, which should be detected, and if found would rule out gall-stones, at least as the sole cause of the disturbance. Here again the effect of food upon the pain must be noted. If unaffected by food it is a factor in favor of gall-stones. With gall-stones alone, independent of a cholecystitis, an absence of pain does not necessarily negative their presence.

In gastric ulcer the point of tenderness is rather circumscribed and usually well indicated by the patient. In both ulcer and stones we may have vomiting, more persistently in ulcers than in gall-stones. A confusing feature in gall-stones is the fact that vomiting often affords temporary relief. An examination of the emesis will,

however, show no change from the normal in acidity or food changes. Vomiting in gall-stone cases, furthermore, occurs immediately after a pain, while in ulcer of the stomach it usually occurs in from one to four hours after eating, varying with the location of the ulcer, whether gastric or duodenal. Examination of the stomach contents and feces by a competent pathologist

almost uninterrupted suffering. If attacks occur daily for weeks we have reason to conclude that we have stones in the cystic duct, an enteroptosis, or cancer if attended with progressive loss of weight and anemia. Constipation often precipitates an attack of colic by damming back the bile, while a free evacuation may relieve an attack of colic.

DIFFERENTIAL DIAGNOSIS BY PAIN AND OTHER SYMPTOMS.

Disease.	EPIGASTRIC PAINS.			Associated Symptoms.
	Time.	Character.	Food Influence.	
Carcinoma of stomach. (Surgical early.)	May not be any early. Half hour after eating. Develops slowly.	Sensation of pressure early. Later, burning, boring.	Dislike meat. Eructations, acid fluid, odorless gas. Later, gas odor of putrid eggs.	Emaciation and anemia. Loss of appetite early. Vomiting not an early symptom — bile stained.
Pyloric obstruction. Spasm. Benign. Malignant. (Surgical.)	Colicky pain daily, on left. More or less discomfort constantly. If immediately after eating it is ulcer of esophagus.	Hardening of the epigastrium on left side. Air cushion like in epigastrium. Dull ache or soreness.	Eructations sour. Dietary errors. Less frequent pain. Vomited decomposed. Sour smell.	Vomit large quantities. Old food, not bile stained, gastric splashing. More painful. Loud borborgyms. Less borborgyms.
Gastric ulcer. (Medical and Surgical.)	Thirty minutes to an hour after eating. Definite in each case.	Left of epigastrium, left of 12th lumbar posteriorly, may be sore spot—stone in stomach feeling — cramp-like, boring.	Often begins immediately after eating, but may be delayed hours. Always influenced by food. Cold drinks, especially beer.	Frequently nocturnal, 11 to 1 o'clock. Usually sensitive to slight percussion, or even to the touch of clothing.
Gall-stones. (Always surgical.)	Irregular but periodical.	Radiates. Is sudden in onset. Cramplike.	Independent of kind and quantity.	May or may not have tenderness on pressure. Vomiting occurs soon after paroxysm of pain. Normal contents.
Cholecystitis. (Surgical.)	Constant.	Tenderness on pressure. May have temperature.	None except overindulgence.	Usually attended with constipation, dyspeptic symptoms.
Appendix. (Surgical.)	Early in acute. Continued in some chronic cases.	If R. inguinal or lumbar is retrocaecal.	Aggravated by increasing peristalsis.	Temperature. Local tenderness. McBurney's point.
Angina Pectoris. (Medical only.)	Irregular.	Cramps. Radiates to left arm and region of heart. Agonizing.	Overeating. After coffee or tobacco. Over-exercise.	Occurs in old age with arterio sclerosis.
Gastrectasis. (Surgical and Medical.)	Irregular—often late in the day.	Copious vomiting daily or now and then. Gnawing, cramplike.	Heavy food may be retained days or weeks; relieved by vomiting.	Fullness, heartburn, Appetite generally good. Constipation and emaciation follow. Suggestive of cancer. Urine scanty.
Perigastritis. (Surgical only.)	Secondary to ulcerations of adjacent organs.	Persistent, boring, stabbing in ep.	Aggravated by movements, coughing and sneezing, movements of body.	Often gastrectasis by bands to the pylorus or duodenum.
Gastroptosis Anemia. (Medical.)	Pressure symptoms after meals.	Fullness and distention. No well marked pain.	Appetite poor. Food regurgitated, distention.	General lassitude, Emaciation and anemia, relaxed abdomen.

Differential diagnosis: "Organic stomach diseases are dependent upon food for symptoms, while those of other organs are not." All have been elucidated by surgery.

is of great assistance—second only to the clinical history—while physical examinations in the early and important epoch are of but minor importance.

In making a comparison between gall-stone colic and pyloric obstruction we shall notice the longer and irregular intervals of pain occurring in the former, while in the latter we have an

Duodenal ulcer may give symptoms similar to gall-stone colic, differing as do gastric ulcers, that vomiting relieves the converse of gall-stones. Attacks of pain without colic may be due to duodinitis, cholangitis, cirrhosis of the liver, adhesions, pericolicitis and chronic pancreatitis, all possessing some degree of obscurity and requiring careful discrimination.

It is often important to determine if a carcinoma of the stomach has involved the liver. Here we can do little but observe the pain, moderate in character, in the right hypochondrium, together with loss of weight and cachexia. Cancer of gall ducts may not be attended with severe pain.

The pancreas of late is claiming much attention from a diagnostic standpoint. Acute inflammation, cysts, or hemorrhage into the pancreas is attended by sudden, agonizing, lancinating pain, occurring in the epigastrium, with collapse, a general cyanosis and a period of apparent obstruction of the bowel, which in a few days gives up. Vomiting is constant but never fecal. The character of the attack, particularly if occurring in a fat person, together with an examination of the feces, will serve to make a reasonably safe diagnosis for an exploratory operation. Physical examination may reveal a sensitive tumor in the epigastrium, which is fixed, not moving with respiratory efforts.

Symptoms referred to the epigastric region do not all occur as the result of pathological disturbances of viscera here located. Some of the most notable and possibly most perplexing arise in chronic appendicitis, not to refer especially to the fleeting symptoms of acute appendicitis, which is so often ushered in by pains referred to the epigastric region. In chronic appendicitis symptoms simulating ulcer of the stomach or duodenum have been so pronounced that operations such as gastroenterostomy have either been performed, without result, or anticipated to find upon exploration no disease located in the stomach, pyloric orifice or duodenum. The symptoms manifesting when compared with gastric ulcer are more irregular and more persistent than are those of gall-bladder disease or gastric ulcer and the pain is usually more severe and often charged to the ingestion of food. Exercise has often been thought to be an exciting cause, while in peptic ulcers and gall-stone attacks it has been less noticeable.

Appendiceal attacks usually put the subject in bed, which is not the case with ulcer or gall-stones, save in very aggravated types. The attacks are not influenced with regularity by the ingestion of food, as are ulcers. Pain, which is the prominent symptom in nearly all of the lesions to which we have referred, with one notable exception—early cancer of the stomach—is in chronic appendicitis a continued distress in the epigastrium, to such a degree that it is here located by the patient rather than at the site of the pathological process, the appendix, though tenderness may usually be elicited at or near McBurney's point. We have seen that food, drink, alkalies and irrigation often bring relief to the symptoms of peptic ulcer, at least for a time. In chronic appendicitis the converse obtains, all substances as a rule aggravating the distress. Vomiting does not

bring relief in these cases, as in peptic ulcers, and is not noticeably frequent, and when observed the emesis consists of food and less sour liquid than in ulcer, but is attended with quite as much nausea.

As has been previously stated, the most constant symptom upon which diagnosis of epigastric lesions are predicted is pain. We must, however, bear in mind the great number of conditions giving rise to pain referred to this region, some of which are angina pectoris, simulating in some degree acute pancreatitis or pneumonia, diaphragmatic pleurisy, subphrenic abscess, thrombosis of the superior mesenteric artery, gastralgia, perigastritis, intestinal ulceration, and many more conditions requiring careful consideration of individual symptoms and an analysis of the pains as they occur, together with the concomitant manifestations, which can only be of service when viewed collectively, no special scientific analysis serving to indicate as clearly the condition as the clinical history when every feature of it shall have been given its full significance.

SOME PROBLEMS PRESENTED BY DERMATOSES COEXISTING WITH SYPHILIS*

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The aim of this paper is to point out a source of frequent error in the diagnosis of cutaneous disease, and especially in differentiating between luetic and non-luetic manifestations.

It consists in giving too much importance to the history furnished by the patient. Even when there is little doubt of the truth of such history it may warp our judgment or divert our attention from the objective phenomena of the disease. Whatever may be true of other departments of medicine, it is certain that the only safe rule for the dermatologist is to make his diagnosis from the picture presented by the skin, unaided and uninfluenced by anything the patient may say, after which it is desirable to obtain the fullest history possible for the purpose of arriving at a comprehension of the particular case before him. There may be cases in which a diagnosis cannot be made on the objective appearances alone, but they are few and become fewer as one's knowledge extends and ripens.

I desire to urge upon all the importance of forming the habit of making a diagnosis whenever possible, from objective appearances alone. Any other course is uncertain and apt to dim our powers of perception, just as a light shining into a traveler's eyes hinders rather than helps his view of the road ahead.

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

Writers have perhaps sufficiently reminded us that a negative history in itself proves nothing and that an absolute diagnosis of syphilis can often be made in the face of the most strenuous denial of an earlier manifestation or of exposure. I shall not further insist upon this familiar fact, but will direct your attention to its converse, namely, that a positive history may just as well prove misleading.

Conclusions concerning eruptions occurring in individuals known to be syphilitic are especially exposed to error, into which he will easily fall who allows his mind to be influenced by his patient's statements before he has formed an opinion (not necessarily unchanging) based on the unaided evidence of the sight and touch.

For example, a man presents himself with a ringed, scaly, non-pruritic eruption. While you are looking him over he remarks, "Well, doctor, I suppose I might as well tell you the truth about this. I had a hard chancre two years ago." The doctor is so impressed that he straightway makes a diagnosis of squamous syphilide, which is unfortunate for him as well as for the patient, for while the statement about the chancre is quite true, yet the eruption is not a syphilide, but psoriasis.

A few illustrations will suffice:

CASE 1.—White, male, aged 45. Sore noticed on prepuce May 1, 1909. Roscola, most apparent on back, appeared June 15. Cannot fix date of exposure. A physician in New Orleans diagnosed syphilis and gave six injections of gray oil. Patient stopped in to obtain my opinion on his way to New York. Site of sore newly healed, but shows cartilaginous induration. Doubt has been thrown on the diagnosis by the appearance within the last week of a crop of intensely pruriginous papules about the waist-line, arms and legs. The tops of many of these have been torn off by the patient's nails.

The appearance of these lesions suggested a question as to whether the patient had been exposed to bites of the leptus autumnalis, or harvest mite (erroneously called "chigger" in this part of the country), which elicited the information that the day before the appearance of the pruritic papules had been spent in the country at a place known to be infected with these pests.

Diagnosis: Syphilis and leptus bites.

CASE 2.—White male, aged 30. Single sore at corona in November, 1899, appearing two weeks after development of a gonorrhea. Patient, an intelligent apothecary, observed no adenopathy, throat symptoms, nor general eruption, but there were a few papules in the palms. These disappeared under specific treatment.

Patient consulted me a year later, Nov. 5, 1900. Had been having some vague rheumatic pains, for which he had taken a gram of sodium salicylate three times daily for five days, ending November 3. On the same day there appeared a finger-nail roseola over the general surface. Temperature 99.4, pulse 108. The patient was seen by three dermatologists besides me, two of whom believed the eruption to be luetic, while the third, Professor Hardaway, expressed grave doubt, saying he had never seen a syphilitic roseola presenting the appearance seen on this patient.

All treatment was withheld. On December 17 a faint remnant of eruption was still visible, which at the next visit, January 14, had disappeared, leaving no stain. During December there was free fall of hair.

Diagnosis: Syphilis, probably with a dermatitis medicamentosa from sodium salicylate.

CASE 3.—White, male, aged 23. Presented himself January, 1901. Blonde, looks strong and healthy. General health always good; never in bed for more than three days at a time; hair abundant; little or no dandruff; nails strong and well formed.

The forehead, sides of face and neck present numerous light-brownish macules giving a mottled appearance. Chest, trunk and arms present two classes of lesions: First, pink or light red macules, or very flat papules, one-third to one-half cm. in diameter, thickly spread. A space of average appearance on the trunk, 5 cm. square, enclosed forty such lesions; second, larger, older lesions of which twenty were counted on the trunk. These are from two-thirds to 1 cm. in their longest diameter, appreciably raised, infiltrated, dark-red, slightly scaly. The newer lesions are perfectly smooth. There is some itching when the clothing is removed at bedtime.

The lower half of the body presents a similar appearance, except that the lesions are somewhat more numerous on the hips. No lesions show pigmentation except those on the face.

There is some swelling of post-cervical, lateral cervical, post-auricular, axillary and inguinal lymph nodes. Just behind the corona is a cartilaginous induration, at the site of an abrasion noticed late in November, soon after which there was swelling of inguinal lymphatics. About December 17 patient began to experience headache, fever and general lassitude. There now is a tender spot over each parietal eminence.

Early History.—Patient's mother tells him that the cutaneous lesions first appeared at the age of 5 years. Since then they have appeared each year about November 1, disappearing in May, except during 1897 and 1898, when patient was living in Kansas and suffering from dyspepsia, when his skin remained clear. The first lesions generally appear on the flanks and near the elbows. At these times the lymphatic nodes are usually swollen and tender, and there is a sense of heat at the surface to which the patient refers as "fever," but does not recall any accompanying thirst or headache.

Under a mercurial course the newer lesions faded within a month, the older persisting some weeks longer. There were no symptoms of any sort throughout the summer, but in the following November there appeared some red, scaly, dry, sharply outlined drop-sized lesions; slightly pruritic, on the back and near the knees and elbows. These lessened under the use of arsenic, but occasionally recurred until the following spring, when they remained absent for the next six months. The patient remained under observation and treatment for three years, continuing to show slight occasional recurrences of the scaly spots during cold weather.

Diagnosis: Psoriasis and syphilis.

CASE 4.—White male, aged 22. Medical student. From his earliest recollection has suffered from a dry, harsh skin showing about extensor surfaces an arrangement into small polygonal plates separated by superficial fissures. Palms and soles free. Face and hands chap easily in cold weather. In January, 1900, a roseola appeared about the neck, chest, abdomen, back, shoulders, arms, hips and thighs. Inquiry elicited the history of a penile sore noticed about December 1. The roseola soon disappeared under a mercurial course, nor did any further symptoms develop during two years of observation with treatment.

Diagnosis: Ichthyosis and syphilis.

CASE 5.—White male, aged 55. Large, well-developed, healthy looking man, a "free liver." In July, 1906, a penile sore which soon became indurated. Came to me in August, 1907, with palmar scaly lesions. Had been taking Hg.I. Mercurial inunctions prescribed, under which patient improved, but soon passed to the care of another physician, who continued the same treatment.

Two years later, in August, 1909, patient returned to me, saying he had a recurrence in his palms. Says he has had no mercury for a year. About the thenar and hypothenar eminences and volar aspects of the fingers are some superficial scaling spots, without appreciable inflammation or infiltration, and groups of deep, pin-head sized vesicles. Patient drinks a good deal and "smokes all day." No luetic symptoms. Advised discontinuance of alcohol and tobacco and prescribed chlorid of gold and sodium with strychnin. The palmar lesions soon disappeared.

Diagnosis: Syphilis and pompholyx.

CASE 6.—White male, aged 50. General health good. Has had frequent skin lesions from early infancy, similar to same he now has. Patient markedly seborrheic. The entire back is dotted with minute red dots about the mouths of the follicles, so close set as to make the surface look pink at a little distance. This is evidently a dry seborrheic eczema. A few larger, flat, dry lesions on the back are of the same sort, as are two more on the scalp, which is partly bald at the apex.

Twelve years ago patient contracted syphilis. Was treated continuously for eighteen months and then remained under observation with occasional treatment, filling out three years in all. He was then discharged "cured."

Nine months ago lesions of another character began to appear. None of these has disappeared (July, 1908), but the older ones have changed in appearance. These lesions are very itchy, and consist of groups of pin-head vesicles changing to pustules on the trunks, arms, buttocks and glans penis. None below the buttocks. On the left buttock a new and typically herpeticiform patch has just appeared. Patient had commenced taking "arsenauro" soon after the appearance of the lesions just described, but thinks it makes him worse. Prescribed a sulphur paste and stopped use of internal medicine.

July 26: Lesions smaller. Itch less. Patient eats largely of meat and eggs three times daily. Urine contains much indican. Reduced amount of proteid.

August 16: Patient has had no meat nor eggs for three weeks, but there is still some indicanuria. Lesions are all fading except a patch of miliary papules and vesicles at the back of the neck which has increased in size, and some new miliary satellite lesions about the old fading patches. These are very pruritic. Lesions on glans persist.

September 4: The patches at the nucha and glans are unchanged, but the others have wholly or partly disappeared, leaving a brown stain. New, large lenticular or nodose lesions have, however, formed about them. Many of the miliary lesions visible at patient's last visit have now disappeared. No indicanuria. Prescribed KI, 10 drops three times daily, increasing a drop daily. Under this treatment remaining lesions disappeared.

Diagnosis: Seborrheic eczema, syphilis, and dermatitis herpetiformis (?).

CASE 7.—White male, aged 28. Contracted syphilis a few years ago. I am (July, 1908) treating his young bride for that disease. Patient consults me for some smooth, slightly infiltrated, non-pruritic patches, each about the size of a five-cent piece, which have existed for three weeks. The right hand shows two on the

palm and one on the dorsum. There is one on the dorsum of the left hand, and one on the right side of the neck. Scrapings of epithelium from these lesions show the trichophyton megalosporon, both spores and mycelium. A tom-cat at home is stated to be losing his hair in patches.

Diagnosis: Syphilis and ringworm.

DISCUSSION.

DR. WILLIAM FRICK, Kansas City: I think Dr. Grindon's paper is very timely. The fact that one has syphilis does not exclude the possibility of some other condition. I think we all have had the experience of finding some other condition coexisting with syphilis. There is one point that I think we should call attention to, and that is that patients are sometimes treated to the point of salivation for a condition which is not syphilis. I refer to pityriasis rosea. That is a point that should be remembered, for this is a condition which may easily be mistaken for syphilis.

MEDICAL ROENTGENOLOGY AS A SPECIALTY

R. D. CARMAN, M.D.

ST. LOUIS, MO.

The evolution and progress of medical science and art necessitate division and subdivision of labor—specialization. In medicine, as in everything else, the fewer things a man does, the better he can and ought to do them. Time was when medicine was one of the functions of the priest. At another time it was the mere avocation of the barber, at least the surgical part of it. The first surgeons must have been regarded as eccentric specialists by the barbers. The ophthalmologist came and stayed and now we have neurologists, gynecologists, internists, dermatologists, otologists, laryngologists; and both medicine and mankind have profited thereby.

The right of a specialty to existence has only this test—that it employ the specialist's entire time and attention with increased benefit to himself, to the profession and to the public. Judged by this test, Roentgenology is and of right ought to be, a legitimate specialty. The hesitancy of the profession thus to recognize it is due to a number of reasons, perhaps the chief of these being the unwarranted assumption that it is comparable and similar to a sort of skilled labor—photography. It ought to be needless to say that the similarity is wholly superficial, and that while the use of a sensitized photographic plate is common to both, nothing else is. The only valid adverse criticism of the Roentgen ray is based upon the fact that during its brief existence an abundance of poor work has been done with it by incompetent or inexperienced men, in many instances working with crude apparatus. At the moment we have a conspicuous illustration in the case of Mayor Gaynor. The first examination of his wound was made by an unskilled person which led to an erroneous conclusion. The second examination, made by Dr. Caldwell, a trained expert, was absolutely plain and convincing. Dr.

Caldwell spoke almost prophetically of this two years ago when he said, in discussing the principles of radiography: "When this point of view has become more prevalent, the pictorially excellent skiagraph of a hand or a foot made by some enthusiastic amateur will no longer excite wonder, and the photographers, electricians and janitors who now make the so-called *x-ray* photographs in many hospitals, will have their activities transferred to other fields, where they will be less a menace to the public health."

A manufacturer of *x-ray* apparatus who is unwilling to take advantage of the more or less prevalent opinion that there is not much to be learned in this line, says: "Most physicians seem to have an idea that their ability to invest five or six hundred dollars in Roentgen ray apparatus should place them in a position to do the most expert work. They will know better when they have tried. If you look up the records of men who are making their mark in *x-ray* work, you will find that most of them have put in not only weeks and months, but years in close application and hard work."

Successful employment of the *x-rays* demands an intimate knowledge of a highly complex apparatus, practical acquaintance with the essentials of a good radiogram, ability to interpret a radiograph properly, detailed instruction in the art of localizing foreign bodies, familiarity with the therapeutic use of the rays, and an appreciation of the dangers which may attend their careless or unskilled application. This list of requirements does not seem formidable, but it presupposes a deep understanding of the principles involved, and necessitates an amount of labor and experience far beyond what might reasonably seem sufficient. So necessary are these factors that it is a fact, whether blameworthy or not, that there are in the United States to-day barely a dozen Roentgenologists who are capable of performing really expert service. The necessity of individual experience lies largely in the fact that the art of Roentgenology by reason of the number, nature and variation of its elements, cannot be reduced to easy formulæ. Efforts have been made, for example, to establish a definite length of exposure, given a certain tube, plate, current, weight of patient and purpose of radiography; but the rule thus derived is not sufficiently approximate to be practically helpful. To ask how long a plate should be exposed for a given case is comparable to asking a locomotive engineer how far it is necessary to open the throttle in order to run at the rate of forty miles an hour.

The dangers which attended the prolonged or careless application of the rays, in the early days of Roentgenology, are well known. The recent death of Kassabian, of Philadelphia, and Cox, of London, reminds us that operators as well as patients have suffered. With the advantage of experience and the invention of safety appliances

x-ray burns and other injuries have become far less frequent; but there is still need of extreme care, for it has been found that, even with ordinary precautions, children are highly susceptible to injury, and that in adults the kidneys and other organs may be harmed by what has been generally considered a safe exposure.

Most certainly the medical Roentgenologist ought to be a medical man, a physician. In the first place, a knowledge of medicine is absolutely necessary as a foundation for intelligent effort in medical radiography. In the second place, the *x-ray* specialist is a consultant in the case, and his opinion should be fortified by all that he can possibly know from every aspect. And, lastly, if he employs the rays as a therapeutic measure both law and common sense require that he be a physician.

A casual examination of the record will show the importance of the Roentgen ray as an aid to scientific medicine, both in diagnosis and treatment. In diagnosis the Roentgen rays have been employed over a constantly widening range. Fractures and dislocations of bones naturally received the first attention of Roentgenography, and with even the simplest technic, the diagnosis has been almost invariably facilitated. In many of the cases only the *x-ray* gives decisive information; and in none can the details be otherwise brought out. The number of important details thus obtainable is proportionate to the Roentgenologist's art and in particular his ability to interpret the skiagram. Every shadow in a radiograph has its meaning, and we should not contentedly admit that any shade, however vague, is beyond interpretation.

Diseases of the bones and joints can often be further elucidated by the rays, notably in tuberculosis, osteomyelitis, rachitis and sarcoma.

The physician as well as the dentist will often find the solution of a perplexing neuralgia in a radiogram of the teeth showing an unerupted or impacted tooth. Empyemata of the sinuses—frontal, maxillary, ethmoidal and sphenoidal—can be found more readily by the rays than by any other means, and pus in the mastoid cells has been thus demonstrated.

The effective field of the rays is by no means limited to the osseous system. In the soft parts new differentiations are constantly being made. Aneurysms are found, tumors are outlined, cavities and consolidations are shown. The application of stereoscopic Roentgenography to the chest has been of immense service in tuberculosis, empyema, pulmonary abscess, and mediastinal growths. By the administration of bismuth prior to radiography, strictures of the esophagus, gastroptosis and other abnormalities of the viscera have been discovered.

The technic of radiography for renal and ureteral stone has been so perfected that now, with a competent Roentgenologist, a positive or

negative diagnosis can be thoroughly relied upon. The same is also true of vesical and prostatic calculi.

The rays have been frequently used with success, and sometimes when other methods had failed, in the diagnosis of extrauterine gestation and dermoid cysts. Even certain heart lesions, such, for example, as aortic insufficiency and aortic stenosis, give a distinctive picture.

Some of the most useful and certainly the most spectacular of Roentgenologic achievements have been the demonstration, and latterly the localization, of foreign bodies. By means of a special apparatus an opaque foreign body in the eye can be localized to within a millimeter of the exact spot. Recently similar appliances have been invented and used with fair success in localizing bullets and other foreign bodies anywhere in the human anatomy. We may reasonably anticipate that localization procedures will soon be carried out with absolute accuracy.

As a therapeutic measure the Roentgen rays have proved their worth in acne, eczema, tinea capitis, and lupus. It is one of the best methods of treating tuberculous lymph-nodes, and brilliant results have been attained in the leukemias, and Hodgkin's diseases. Great improvement is frequently observed in tuberculous peritonitis, epithelioma, carcinoma, sarcoma, and goitre.

Roentgenoscopy deserves separate and praise-worthy mention. By the use of the fluoroscope and its modifications, the diaphoroscope and orthodiagraph, physiologic and pathologic processes may be observed and studied *intra vitam*. Many of the phenomena of the circulation, of respiration, of digestion, can be seen in action. The progress of a peristaltic wave in the stomach, the pulsation of an aneurysm, the splashing of a pleural effusion, can all be viewed directly. These must be seen on the screen, and not on the plate, to be of any direct value in diagnosis. With the orthodiagraph, orthodiagram or tracing can be made of the heart, of an aneurysm, or of a tumor, showing its exact size and contour. These may be compared with similar drawings made later and changes thus noted.

This statement of the difficulties, requirements, and dangers of radiography should not be construed as an argument that it is useless to make instruction in it a part of the ordinary medical course. On the contrary, its high importance, which is daily growing larger still, makes its inclusion in the curriculum absolutely necessary, to the end that the graduate may have a fundamental knowledge of this special branch, as of other specialties, and that with this carefully laid foundation, he may develop that expertness for which there is a real demand.

The Roentgen ray, together with the Finsen light, radiotherapeutics, electrotherapeutics, and a bureau of photographs, would logically comprise a department of the medical school, which in

competent hands would be a credit to the institution and valuable to its faculty and students. The association of the Finsen light, electro- and radiotherapy, with the x-ray is logical, both in view of certain common physical qualities and of similar therapeutic indications. The bureau of photographs would be a convenience in the maintenance of a satisfactory system of records, especially useful in the collation and publication of cases.

If anyone suspects that the field of medical knowledge is too narrow, let him look into it a little. If he wishes to read, its text books and periodicals will give him an abundance of literature. Does he fear that there is no room to theorize? Let him take up the physics of the x-ray—that will keep him employed for awhile. Does he want to do original work in diagnosis? Let him consult the index and see how many diseases remain to be tried out by the rays. Does he want to study pathology? Then let him study it in living tissues as well as in dead. Thus, too physiology or anatomy. Does he want to find a remedy? Let him not forget to exhaust the possibilities of the rays in therapeutics.

The Roentgen ray is only fifteen years old; medical Roentgenography is younger still; but already it has more than a name and a habitation. It has a respectable literature and a commendable history. And, most significant of all, it has prospects not less hopeful than those of any other specialty.

Nowhere in medicine is there a more promising field for the exercise of energy, scholarship, and judgment, or a greater opportunity for original research than in that of medical Roentgenology.

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LIFE INSURANCE EXAMINATIONS*

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In this country, life insurance has grown to colossal proportions in less than a century. It is to the credit of the American companies that medical selection of risks was first instituted, and it is to this phase of life insurance that I invite your attention, not to point out new methods or data, but to emphasize some land-marks in life insurance examinations. To discuss the subject minutely would require a complete rehearsal of diagnostic methods and technique; therefore I have essayed to treat the subject from the field examiner's standpoint, as follows: Life insurance examinations. 1. How made? 2. Value of to the insurer. 3. Compensation for the examination. 4. Suggestions to increase the efficiency of medical selection.

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

1. Life Insurance Examinations, How Made? That the examiner should be familiar with the question blank and follow it routinely, answering every question applicable to the applicant, goes without saying; more, he should be a keen observer, a reader of individuals, a detective if you please, because the applicant comes in the mental attitude of appearing at his best, or it may be wilfully to deceive. His mood does not lead him into details about personal illness and those of his family lineage. He is not the patient now. Much information relative to personal illnesses and family history must be obtained by skilful questioning.

The general observation should note particularly the following points: Gait, which may suggest brain or spinal disease, rheumatism, gout, trauma or alcoholism. Complexion may hint malignancy, hepatic disease, chronic nephritis, anemia or Addison's disease. Hands, callousness or softness of which will bespeak the character of the occupation. Nails, if ridged or corrugated transversely indicate a recent severe illness. Arcus senilis in middle age or shortly after indicates a tendency to early decay. Tortuous temporal arteries may point to arteriosclerosis.

The physical examination should be made with the chest and abdomen bared; in case of a female a single thin garment may be permitted over the chest and abdomen. Examine the circulatory system first. Aside from cardiac murmurs and pulse irregularities (which oftentimes requires a high degree of skill to elicit), note especially the location of the cardiac apex beat; when not found $\frac{1}{2}$ to 1 inch to the sternal side of the papillary line in the fifth intercostal space it usually means a cardiac hypertrophy or dilatation, aneurism of the thoracic aorta, or, perhaps, a tumor, or a pleuritic effusion trespassing upon the heart's territory. Arterial tension must be considered; a persistent hypertension means chronic interstitial nephritis, arteriosclerosis or hyperthyroidism. If the examiner cannot estimate the arterial tension by his tactile sense I recommend the sphygmomanometer, which is much more scientific.

Next, the chest; note particularly the supra- and infra-clavicular spaces; if depressed with increased vocal resonance suspect phthisis; the interspaces, if bulging, suggest a pleuritic effusion; the "barrel-shaped chest" points to emphysema, which may be easily overlooked.

Pass to the genitourinary system: first rule out syphilis by history and an examination for its "ear marks," *i. e.*, glandular enlargements (general), shin or sternal cicatrices, saddle-nose, iritic synechia and syphilodermata. Now we consider the urine: color, reaction, specific gravity, if light in color and low in specific gravity (1010 or below) we may suspect a chronic interstitial nephritis, if albumen is not present, or

present in very small quantity; this suspicion is further confirmed if we find a history of frequent urination and large quantities of urine. The chemical tests for albumen and sugar should be made with competent reagents and filtered urine. I emphasize filtered urine because, if turbid, misleading reactions may occur. I believe the insurer's interests would be much better protected if the urine of every applicant above 35 years of age was examined microscopically.

I call special attention to the examination of the lungs, circulatory system and kidneys because in these organs lies the greatest loss to the insurer during the first five years of the policy, when the examination should be most potent.

2. Value of the examination to the insurer: It is obvious that the insurer regards the examination as valuable because no company hazards a risk without it; but of just how valuable it is there is a difference of opinion among medical directors of insurance companies. The medical director of one of the largest companies says: "It is a fact that the actual physical value of the examiner's judgment as to the insurability of a risk is not very great. In this company about 15 per cent. of those who apply for insurance are rejected for one cause or another. Of this 15 per cent. between 3 per cent. and 4 per cent. are rejected by the examiners in set terms. In other words, of all of the applicants who are ultimately rejected by the company about three-fourths are recommended for acceptance by the examiner." Another medical director says: "The value of medical examinations for life insurance depends, to a very great extent, on the competency of the examiner. Some of the examinations are of slightly greater value than if the questions were answered by a layman." Another medical director says: "A life company could secure without medical examinations a mortality within 10 per cent. to 20 per cent. as favorable in the first year as that obtained through medical examinations."

I dare say that many examinations are a farce; some because of the carelessness of the examiner; some because of incompetency; some because of friendly sympathy for the applicant; and a few with fraudulent intent. I am happy to say that medical men as a class are sincere and honest in their work. It is the exceptional man who would conspire to defraud; the occasional one whose sympathy blinds his judgment, perhaps in the case of a close friend whose friendship and influence may be lost if the applicant fails to pass. For the incompetent and careless examiner the medical director must be on the alert to discard him. It is due to these frailties of the medical examiner that medical directors variously estimate his value, the value of the examination depending entirely on the honesty and competency of the examiner, and these, it must be admitted,

are variable. The real value of medical examinations would be represented by the difference in mortality between a given number of risks of equal age and amounts selected by various medical examiners and a like number without medical selection. So far as we know no company has tried this; perhaps the experience of the early English companies in non-medical selection has deterred others.

3. Compensation for the examination: I hold that the responsibility of the position of medical examiner for a life insurance company and the value of the work done by a competent and conscientious examiner entitle him to a liberal fee. It is my opinion that the fee for a life insurance examination should range from \$5 up, and not down. If the medical man's opinion relative to a risk is worth more than the layman's it seems to me that a less fee is undignifying and unprofessional. A real estate man would not negotiate a \$1,000 transaction for a fee of \$5; a horse jockey must have \$10 or more if he buys, sells or trades a horse for you; the lawyer must have a fee larger than \$5 for an opinion where \$500 is involved. Is the medical man to be classed lower than all these? Happily, not by a number of old line companies, while there are some companies which are practicing rigorous economy—after a period of high living, champagne luncheons, political contributions, \$75,000 annual salaries, etc., and pay a \$3 fee to the medical examiner, with some quaking of conscience, fearing too much extravagance with the policyholder's money. Personally I think every self-respecting, competent physician should refuse to make examinations for any old line company for less than a standard fee of \$5; if we do it for less we value our services beneath the horse jockey, the real estate man or the lawyer.

4. Suggestions to increase the efficiency of medical selection: Because of the great number of substandard risks that get into the fraternal companies, medical inspectors have been advocated, now and then, but so far, as I am informed, it has not been practiced by any of the companies, except in a modified form in the larger cities.

The medical inspector would be a physician especially skilled in life insurance work, whose duty would be to travel over a given territory and examine and report on such risks as the medical director might request. The applicant being a probationer, if passed by the local examiner, until passed or rejected by the medical inspector's report. The possibility of the medical inspector's visit would be an incentive for the local examiner to be more careful and more thorough in his work, and would also enable medical directors to depose their incompetent and careless examiners.

I believe no applicant should be accepted whose prejudice against the regular profession would

prevent him from consulting the regular medical man in case of illness demanding treatment, instead of consulting the Christian scientist, magnetic healer, absent treatment cure fakir, osteopathic grafter, etc.

To put the problem of efficiency of medical selection as one medical director places it: "The only solution of the problem is, in my opinion, that medical colleges, instead of altogether ignoring life insurance examinations in their course of instruction, should incorporate a practical course of instruction which would familiarize their students with the work and not allow them to gain their knowledge by experience. I believe that medical societies should aid insurance companies by informing them of unscrupulous examiners, and then, when a member of a medical society wilfully misleads an insurance company in reference to a risk whereby the company sustains a financial loss, that such conduct on the part of the examiner be considered sufficient ground for expulsion. In other words, I believe the time is ripe for cooperation between the profession and life insurance companies."

HOW TO INTEREST THE YOUNG MEN IN THE SOCIETY

F. W. BURKE, M.D.

LACLEDE, MO.

As a premise and for the sake of eliciting discussion I make this broad statement at the very beginning of some brief remarks on the subject of "The Young Men in the County Society and How to Interest Them," viz., the young man who has graduated in medicine without having had instilled into his mind a deep-seated interest for county medical society work has been neglected, and in just so far his education is deficient.

If county medical society work is as necessary as we pretend it to be, and if it is as essential to good government and to humanity as we know it to be, it is worthy of the most profound thought and should have its place on the curriculum of every medical college and university in the land.

Work of such vast importance should not be left to be learned in a haphazard way after one has begun an active career, when too often it is impossible to reach them by any means.

Every county secretary knows of the difficulty of reaching a certain class and how apparently impossible it seems to arouse any interest whatsoever in the work which is intended to make better doctors, and, as a result of this, to make the public the recipient of better health, and thus be the means not only of saving life, but also the expenditure of great wealth.

* Read before the Missouri Society of Medical Secretaries, Hannibal, May 3, 1910.

This is not only a humanitarian question, but one of economics as well. Consequently I say that medical society work should be properly classified and conscientiously taught in every medical school, for then there would be no question of arousing interest when the time comes to join the county medical society.

These young men so educated will come to us as teachers and as an inspiration to those who have become older in this work. Their enthusiasm for and desire to continue systematically their life's study in a methodical way would be an impetus to us for harder and more efficient work, and within another few years would be the means of evolving a state medical association in Missouri as far superior to the one we have today as this one is superior to the one we had five to eight years ago.

It shall not be within the province of this paper to discuss the methods which shall be employed, but rather to suggest the means and their practicability.

The county secretary consumes much energy and time trying to interest a certain number in county society work who, however, when sufficiently convinced, make worthy members; but it requires an undue amount of personal sacrifice and the expenditure of entirely too much time.

These uninterested members and non-members must be approached one at a time. They are remotely situated, one from the other, and it is impossible to get to them in any other way. The secretary must write, or telephone, or visit, and in many instances I have found it necessary to do all three, and even then have failed at times.

Such a method is too crude for this day and generation, and should be discarded as obsolete and unworthy of our more advanced education.

Too many times it fails to accomplish the desired end, and every time it fails it leaves an undesirable condition for the doctor concerned, for the profession at large and for the community in which the doctor lives. Unfortunate for the doctor because he has failed to grasp his opportunity; for the profession because of the ballast they must carry under the cognomen of doctor, and for the community because they are deprived of the very best possibilities in the man at whose hands they may reasonably expect the very acme of learning.

County secretaries of the Missouri State Medical Association, I am not dealing in phantasies when I say it is possible and also practical to educate our young men so they will not have to be enticed and begged into county medical society work.

The day will come when it will not be necessary for you to write from one to six letters and make a personal visit for every new name added to the roster or to make a sight draft on some of the older ones to keep them in good standing.

I think I can see in the very near future every young graduate in medicine bubbling with enthusiasm and loaded down with interest approaching his county secretary asking for membership and assignment to honest work.

To many of us who have passed through the revolution of medical society work within the past ten years this will seem the end of our labors; but not so. Just then we will have begun really in earnest to beat time to the march of progress, and we will have to strive to our very utmost to keep in the ranks, for, if we would not be relegated to unscientific oblivion, we must work, and in no place can so much be accomplished as in a county medical society where interest is never waning.

SPINAL ANESTHESIA

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History.—Corning, of New York, was the first to attempt spinal anesthesia but the real history covers a little over a decade, dating from August 16, 1898, when Bier first produced spinal analgesia by injecting cocaine into the spinal cord of a patient, and a few days later subjected himself to spinal anesthesia that he might make a more personal study of the symptoms and sequelæ. He injected his own assistant on the same day.

Following very closely upon this, numerous workers submitted the method to all sorts of experiments to determine the practicability of spinal anesthesia for major operations. The strongest proof positive against the method with cocaine was its abandonment by Bier himself, on account of the disagreeable after effects. The whole subject rested in oblivion with the better class of surgeons until 1904, when Fournneau, a French chemist, discovered stavain. Many workers have devoted their energies to the subject since then but in the past two years Professor Jonnesco, of Bucharest, supported by a long series of cases and experiments, has come forth with a new method which has made medical men wonder if, after all, general surgery with spinal anesthesia is not perfectly possible with as good results as with inhalation.

Chemistry and Pharmacology.—Without entering into any extensive dissertation on this phase of the subject, suffice it to say that cocaine is composed of two benzene rings which, with heating, are decomposed into benzoic acid and ecgonine, a pyridine derivative (Cushny). Even an extremely small dose is accompanied by symptoms of great toxicity, as is shown in the headaches, vomiting, etc., which follows in some cases. Its grouping under the general head of protoplasmic poisons and the idiosyncrasy which some have for

small doses, do not make us wonder that Bier abandoned its use as a spinal analgesic. Various substitutes, such as alypsin, with one benzene ring, also very toxic; novocain, which is less toxic but also less anesthetic; and many others, were introduced from time to time. With the discovery of stovain, however, a substitute seems to have been produced which has the same anesthetizing power as cocaine but dilates the blood vessels, whereas cocaine contracts them and causes a tonic action of the heart. According to New and Nonofficial Remedies, it is one-third to one-half as toxic as cocaine. Regarding his preference for stovain Jonnesco says that he has had greater experience with it, and hence knows it better. He does not doubt that tropacocain or novocain would have proved equally good in his method.

Technic of Administration.—In describing this, I have followed the account of A. E. Barker, an English anesthetist, whose experience with this form of anesthesia has been more extensive than that of any man in England, where all forms of anesthesia have been more thoroughly considered and tested than in any other country. Professor Jonnesco's method will be considered under a separate heading. In Barker's series of 100 cases he uses the following technic, which I have attempted to summarize briefly:

1. The Bier needle with Barker's modification is used. This consists of a hollow needle, pointed at one end, which will carry either a blunt solid inner cylinder (stylet), or a cannula which should be about 1 or 2 m.m. longer than the needle, giving the effect of a trocar with a hollow inner cylinder and a pointed hollow needle taking the place of the outer tube of the trocar. Both the needle and the cannula should fit a syringe, one known as the "Record" serving the purpose best. I might add that a needle made of an alloy of iridium and platinum is most satisfactory for all lumbar punctures. As has been found in many leading hospitals, such a needle is durable and does not snap so easily as the ordinary steel needle.

2. Absolute asepsis is very important and the utmost care should be taken lest some irritating germicides enter the wound. To avoid this the area at which the injection is to be made should be washed with physiologic salt solution after thoroughly cleansing the selected part with soap and very hot water followed by a compress of the usual antiseptics for some hours. No trace of any germicide should be left on the skin nor should anything but boiling water be used to sterilize the syringe. The same syringe should be used only for lumbar punctures.

3. The best point to be selected for the injection is between the spines of the second and third vertebrae directly in the midline. In children where the spinal cord extends below the second lumbar the point selected should be lower. This

seemingly minor detail is worthy of serious consideration as lumbar puncture has been attended by untoward results in some of our own hospitals on account of such an oversight. The median line is taken because here the puncture is less painful; there is less liability of hemorrhage from the vessels lateral to the spines; and the solution spreads equally and easily. The fourth lumbar spine is determined by drawing a line between the highest points on the iliac crests behind.

4. The needle containing the stylet is introduced at the above mentioned point and pushed in for about an inch. After passing the supraspinous and interspinous ligaments very little resistance is felt. Finally there is a sensation of having pierced a tense membrane (the *dura*) and spinal fluid flows out in steady drops or a stream.

The analgesic fluid should not be injected unless the spinal fluid comes freely. After 10 c.c. are removed the hollow cannula is attached to the syringe and introduced through the hollow needle into the spinal canal. Because of its length it extends 1 to 2 m.m. further into the canal than the needle. After "pushing the cannula home" the injection fluid is introduced. The syringe is withdrawn; the wound covered with sterile gauze and collodion; the patient rolled over on his back and the pelvis elevated three to four inches. The greatest pain is experienced when the skin is pierced or if the periosteum is scraped by the needle.

5. The stovain used is a modification of Chaput's compound, a substitution of 5 per cent. glucose being made for the 10 per cent. sodium chlorid. Hence the formula is as follows:

Stovain	10 per cent.
Glucose	5 per cent.
Aq. Dist.....	85 per cent.
Total sp. gr.....	1.0831

The glucose is added to raise the sp. gr. of the solution so that gravity will assist in diffusing it through the spinal cord, the fluid in which has an average sp. gr. of about 1.007. Much better results were obtained from the use of this solution in the last 50 cases of the series.

Sequelæ.—At a meeting of English anesthetists in 1908 the effects of spinal anesthesia from introducing stovain into the spinal canal were discussed. The most pronounced post-operative symptoms reported were vomiting and severe headaches. Foreign reports were cited among which were 8 cases of diplopia, 2 of death, 6 of respiratory paralysis and innumerable cases of vomiting associated with headaches and pains in the back.

Of thirteen cases of persons who died from spinal anesthesia and were examined post mortem by Spielmeier, seven had received doses varying

between 0.1 and 0.12 of a gram and the remaining six 0.5 to 0.07 of a gram. These patients died at varying periods after the operation. Autopsies were made a few hours after death and portions of the brain, medulla and spinal cord were examined. Marked chromatolytic changes were found in the ganglion cells everywhere and degenerations throughout the neuro-fibrillæ. Spielmeier thinks that these were produced indirectly through an effect on the medulla. The nervous systems of all were markedly affected.

In a number of experiments on dogs and monkeys similar chromatolytic changes in the ganglion cells were seen after the intraspinal injection of stovain. In the anterior horn single large groups of cells were affected as high as the lower dorsal vertebræ. To eliminate any idea that mechanical trauma was responsible for the condition Spielmeier injected normal saline and sterile water into the canals of a number of dogs, but produced no pathologic changes that could be made out from histologic sections of the nervous structures of the killed dogs. On account of the small number of cases examined he merely offers the experiments without drawing any broad general conclusions. These cases along with his experiments, however, are suggestive that stovain, or any irritating drug when injected into the spinal canal, has a deleterious effect on the nerve structures.

In addition to the changes in the nervous system Dr. D. Murray Morton has reported cases of gangrene of the skin of the extremities in two cases. Out of 100 cases J Hogarth Pringle, another English surgeon, reports 22 failures to produce analgesia sufficient to complete operation. Four of his patients had syncopal attacks always accompanied by retching and vomiting. His main objection to spinal analgesia is the uncertainty in the action of stovain or the other drugs used.

Jonnesco's Method.—In Dr. Jonnesco's work he has used neutral strychnia sulphate mixed with the stovain, and makes his injection in both the upper dorsal and lumbar regions. He prefers stovain to the other drugs because, as stated above, he has had all of his experience with it. The technic for administration can follow the Barker method, but there are a few points in connection with the site of puncture, preparation of the solution, dose, etc., which should be mentioned.

1. The quantity of stovain, tropacocain or novocain necessary is sealed with an India rubber stopper and boiled in an autoclave or ordinary sterilizer. The water used for dissolving the strychnia should be sterilized, not distilled.

2. The site of puncture varies with the site of operation. In operations on the upper half of the

body a point between the second and third dorsal spines is chosen, and the needle follows the lower border of the spinous process of the second dorsal to the dura. This location is used in operations on the head, neck, upper limbs and thorax, and the position in which the patient is placed after the injection is determined by the part to be operated on, as is shown by the following summary:

A. High dorsal puncture—i. e., between the second and third dorsal vertebræ:

1. For analgesia of the head and neck—patient lies on back.
2. Throat—head raised slightly.
3. Face or skull—horizontal position.
4. Upper limb or thorax—sitting posture for 2 or 3 minutes and then supine with head, neck and thorax slightly forward.

B. The dorso-lumbar puncture is used for operations on the liver, spleen, pancreas, kidney, etc. The patient remains sitting for two or three minutes, then lies on his back, the head, neck and shoulders being raised. If after four or five minutes analgesia is incomplete, the Trendelenberg position may be used for three or four minutes. I should think that some embarrassment would be experienced in obese people for, as suggested by many authorities, the Trendelenberg position should be avoided as much as possible in obese patients on account of the resulting dyspnoea. There would be an added disadvantage in using it here because respiratory disturbances have been reported in many cases of low spinal anesthesia. These would be increased proportionately in high puncture.

3. The dose varies with the age of the patient, the site for injection and the patient's condition. A brief summary of the dose used follows:

A. STRYCHNIA.

1. *High Dorsal.*—Child (1 to 5 years): $\frac{1}{3}$ mg. in 1 c.c. sterile H_2O . This can be made by dissolving $3\frac{1}{2}$ centigrams of neutral strychnia sulphate in 100 grams of sterile H_2O . Above 5 years and older. Half mg. in 1 c.c. sterile H_2O or 1 c.c. from a solution of 5 cg. in 100 c.c. sterile H_2O .

2. *Dorso-lumbar.*—Child (1 to 10 years): 1 mg. strychnia in 1 c.c. H_2O . Above ten years, the same amount. For either of the last two, use 1 c.c. of a solution of 10 cg. neutral strychnia sulphate in 100 c.c. sterile H_2O .

B. STOVAIN.

1. *High Dorsal.*—Child (1 to 5 years): 1 centigram. Child (5 to 15 years): 2 centigrams. Older than this: 3 centigrams.

2. *Dorso-lumbar.*—Child (1 to 5 years): 2 to 3 centigrams. Child (5 to 15 years): 4 to 6 centigrams. Child (15 to 20 years): 6 to 8 centigrams. Adults and aged: 10 centigrams.

Dissolve the proper dose in any one of the appropriate solutions of strychnia designated under A.

In anemias, tuberculosis, hemorrhage, injury, etc., the dose had best be lowered somewhat, i. e., the 10-cg. dose lowered to 5 or 6 cg. In preparing the mixture for injection the stovain is added to the strychnia solution. For further particulars the reader is referred to Dr. Jonnesco's article in the *British Medical Journal*, where a complete description of the entire method is

given. His series embraced 398 of his own cases, which did not include 114 cases of Dr. Jiano and about 100 of Dr. Nasta, his former pupils. He states that not a death in this series resulted from the injection and that very few untoward results were noted, the cardiac embarrassment having been entirely overcome by the addition of the strychnia. He does not agree with others on the site of the lumbar puncture, but feels that the puncture is best made between the twelfth dorsal and first lumbar vertebræ.

In advocating the high puncture with the addition of strychnia he has established a precedent which few men wish to attempt, and it is here that he will have the utmost difficulty in convincing the medical world that his method is practicable. In England he has received the greatest praise for his work and in this country he has demonstrated that he can perform the most difficult operations with the high puncture. The consensus of opinion seems to be that spinal puncture above the lumbar region is a highly hazardous procedure which ought only to be attempted at the hands of an expert. At present the form of spinal analgesia which seems to rest on firm footing is lumbar anesthesia after the Barker method, and this had best be reserved for special operations, i. e., on patients with severe cardiac, pulmonary or renal complications where a general anesthetic, such as ether, cannot be used. As to high puncture: in operations on the upper half of the body, where there is no chance of recovery except through operation and ether or chloroform is absolutely contraindicated, the high puncture in the hands of men of experience might be tried. Before it can be used as a general anesthetic in all operations the work must be proved harmless without a doubt and anesthetists must become expert in the method. Even then, in most cases it would be unwise to have the patient perfectly conscious during a major operation. The loss of consciousness does not merely remove the pain; it also removes psychical effects which are in many cases harmful to the patient and extremely distasteful and exasperating to the surgeon.

In a recent number of the *British Medical Journal* a well-known English surgeon reports a case of death from Jonnesco's method in a strong, apparently healthy man suffering from intestinal obstruction. This fatality came after a successful attempt in one other case, and as the total number tried was two (a mortality of 50 per cent.), this surgeon was naturally very pessimistic over his results. Such cases, reported in early trials of the method, give additional proof that every caution is necessary in its use and that the efficacy of general anesthesia as advocated by Jonnesco must be substantiated without a doubt before it will be accepted by the more conservative members of the medical profession.

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SPECIAL ABSTRACT

ARSENICAL TREATMENT OF SYPHILIS

While the medical profession of the country is standing on tip toe awaiting the arrival of supplies of "606," and the results of trials with this remedy for syphilis that will be made at home, Dr. John B. Murphy, of Chicago, has had very remarkable success in syphilitic cases with the arsenical preparation sodium cacodylate. In the issue of the *Journal of the American Medical Association* for September 24 Dr. Murphy briefly describes the astonishing effects of "606" as re-



Fig. 1.—A chancre on the lip before treatment. Syphilis from the common drinking cup.

ported by those who have been permitted to test this new remedy, and then gives an account of his success with sodium cacodylate. He says:

"It has been announced that this drug will not be given to the profession for use for a number of months, a fact which forced us to try other preparations of arsenic. The one with which I have been most familiar is the sodium cacodylate which we have been using for seven years to allay the pain of metastatic, osseous carcinomata. For

this purpose I have been administering it in doses of from 3 to 6 grains by mouth and have given from 1 to 2 grains in single doses daily hypodermically, also using it for the various other purposes for which arsenic is indicated. One of its striking therapeutic effects is the rapid dissolution of the deposits in fibrinous pericarditis in children, when it is administered in doses of from 1 to 3, or even more, grains daily.

I have been giving it in doses of from 1 to 2 grains hypodermically into the muscles and it has a most striking effect on the syphilids,



Fig. 2.—Patient shown in Fig. 1, nine days after treatment of syphilis with arsenic preparation.

mucous patches and primary chancre. From the latter the spirochetes disappear completely in forty-eight hours, the induration is markedly reduced in twenty-four and it becomes a soft, clean ulcer in seventy-two hours. From that time on it repairs with the same speed as an aseptic sore of mechanical origin would heal in the same tissue.

I have not pressed it in the tertiary lesions, but will not hesitate when such cases come under observation, as the toxic limitations of the drug and the line of safety in its administration are known.

Photograph 1 is from a patient, aged 17, who became infected in a cold sore on the lip from a drinking cup. The examinations for spirochetes were made at the Columbus Medical Laboratory and slides were preserved; the spirochetes were numerous. The patient received two injections of $\frac{1}{2}$ grain each into the pectoral muscle, twenty-four hours apart. Forty-eight hours after the primary examination (at which time only a clean soft ulcer without induration remained), numerous slides were prepared for spirochetes, both at the Columbus Laboratory and at Mercy Hospital and all were negative. The injections were continued in $\frac{1}{2}$ grain doses for eight days, then from the eighth to the twelfth day in $\frac{3}{4}$ grain doses and permanently discontinued. The patient showed none of the physiologic effects of arsenic.

Photograph 2 shows the condition of the ulcer nine days after treatment was instituted as a small abraded surface without induration and no longer than a grain of flax-seed and thirteen days from the initial treatment the ulcer was completely healed with no evidence of the disease remaining.

This case was demonstrated in all its stages to the visiting physicians at Mercy Hospital.

In a child 9 months old with a papillary syphilid a $\frac{1}{4}$ -grain dose was administered into the pectoral muscle. The rash entirely disappeared in forty-eight hours. In a patient with active gastric crises two 2-grain doses were administered into the pectoral muscle, twenty-four hours apart, followed by entire cessation of pain, while in his innumerable former attacks the pain lasted three weeks.

A perforating ulcer of the palate in the service of a colleague continued to advance in its destruction under daily injections of $\frac{1}{4}$ -grain doses of mercuric bichlorid. Two injections of three-fourths of a grain each of cacodylate of sodium caused the gray surface to disappear and the margin of the ulcer to heal over in six days.

These incomplete reports are published merely as suggestions to practitioners who are willing to try a remedy as safe as sodium cacodylate and who have numerous cases coming under their observation, as the only syphilitic cases I encounter are those presenting surgical lesions.

I would further suggest that the primary dose should be from 2 to 4 grains, depending on the size and strength of the patient, and should not be repeated within three or four days unless there are special indications for it.

I have never seen such effects produced by any form of treatment.

I have not given it by the intravenous method, but I will so use it in a more dilute form, in the same size doses. Professor Ehrlich has been kind enough to send me, through Dr. McKenna, twenty-five doses of "606," which are due in Chicago in a few days and which I shall use in control cases with sodium cacodylate.

100 State Street.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

OCTOBER, 1910

EDITORIALS

MEDICAL EXPERT TESTIMONY

The conference between the committee on medical expert testimony of our state association and a similar committee from the Missouri Bar Association has resulted in drafting a proposed act to divest this phase of court trials of those features which rendered the present system very offensive and repugnant to the discriminating portion of every community. The bar association freely admits that the present system of obtaining expert testimony in this state is utterly fatuitous and so absurdly grotesque at times as to merit fully the condemnatory cry that has been raised against it. In several states, within very recent years, laws have been adopted which give some color of respectability and reliability to the testimony of the expert witness; and this has been accomplished through the very simple expedient of altering the relation of the expert both to the amount and to the source of his fee.

Hitherto it has been the custom, particularly in hard fought legal battles (and now we are referring exclusively to medical experts), for each side to call as many experts as the counsel deemed necessary to establish his cause, the number being limited usually only by the plethora of the client's purse; and of course the amount of the fee paid to each expert was known only to the lawyer and the medical man himself. One readily perceives why, under such a system, the end aimed at is defeated by the very means adopted to attain it since cupidity and avarice are vices far too prevalent to expect constancy to the highest principles of right in more than a few exceptional instances. The medical profession has loudly proclaimed its antagonism to the present system of obtaining medical expert testimony, having realized long ago that few men can withstand the temptation to swerve from strict adherence to an uncolored opinion under the insidious influence of easily gained fame and fortune.

One of the momentous causes leading to the existence of this state of affairs has not been weighed proportionately with its bearing on the question, and therefore corrective measures have not, except perhaps in rare instances, been ap-

plied to this factor, namely: the attitude of the legal profession toward medical experts. Without attempting to exculpate medical men for the part they have played in this vexed question, we believe its solution cannot be worked out satisfactorily until proper attention has been directed to that other and equally guilty person—the lawyer whose methods and practices in extracting evidence from a witness have only the object of diverting the testimony to his client's benefit and suppressing if possible anything that cannot be so construed. Medical men when testifying as experts have been entirely at the mercy of the attorney; instead of being permitted to testify as their belief and knowledge dictate, they have been forced to make admissions which did not reflect the true medical view of the question. For this unintentioned construction on his evidence—permissible no doubt from the standpoint of legal ethics—the doctor is accused of bias. In reality the lawyer should be condemned. Furthermore, in his quest for evidence that shall be all in favor of his client, the lawyer proceeds on cunningly laid lines, appealing to the gross material instincts of the doctor, while affecting the fullest belief in the latter's professional integrity; and again the doctor is blamed for giving a biased opinion, but the lawyer's part in prompting the suggestiveness of the testimony is entirely overlooked.

Medical expert testimony will never rest on that sound basis which its importance in court trials ought to build for it, until the legal profession lays a corrective hand on those of its own members who resort to questionable methods of extracting evidence from the medical expert. No amount of legislations can accomplish this end, for the giving of testimony is largely a matter of morals; and the committee from the bar association frankly acknowledges itself in agreement with the view expressed by those who are interested in raising the standard of medical expert testimony, that: "fundamentally the reform of medical expert testimony is a moral question, and that 'good morals will avail more to settle it than good laws.'" But, we pause to ask, is it only the medical expert's morals that need an overhauling?

The adoption of the proposed bill, which we print in another column, will be a long step toward accomplishing the change in dealing with the medical expert, and it should receive the earnest consideration of the members. We suggest that the subject be discussed at county society meetings and that local attorneys be invited to participate in the discussion. A closer alliance than has existed in the past between the two professions must surely result in benefit to both law and medicine.

PUBLIC HEALTH WORK—COOPERATION OF COUNTY MEDICAL SOCIETIES WITH TEACHERS' READING CIRCLES

The president, Dr. Pearse, has been meeting with the county societies in some of the eouncilor districts where the county societies have not been doing active work, urging the county societies to get actively to work in matters of public health. It should be a very important part of the work of the organized medical profession to keep the state free from preventable diseases, such as typhoid fever, scarlet fever, measles, diphtheria and tuberculosis. When we consider that almost every county in the State of Missouri has more cases of typhoid fever within its borders than the whole Island of Great Britain, we are led to stop and consider the causes of this dreadful condition. We find that they are due largely to bad sanitary conditions existing throughout the country and in the handling of milk and food products between the cities and the farms.

The State Teachers' Association has already taken up this matter and is ready to join with us in a crusade against these conditions, and Dr. Pearse has worked out a plan that it seems must meet with success: Every county has a Teachers' Reading Circle that meets from one to four times a month. This reading circle adopts, each year, a book for study; the book this year is "Civics and Health," a most excellent work, by Dr. Allen, of New York. It treats of the things that tell for good health in school children: the removal of adenoids, the examination of children for defects of sight, speech and hearing, and the hygienic care of school children.

Under Dr. Pearce's advice and direction a few county societies in the state have joined the Teachers' Reading Circle of the county and each doctor and each teacher has purchased a copy of the book from the county school superintendent. This enables them to study and discuss the problems together. In this way the county societies will become closely affiliated with the school life and the home life of every family in the district. It will impress on the minds of the people in each district the progressive nature of the county society.

Bates County Medical Society has led in this matter, under the advice and direction of Dr. Chastain, coupled with the counsel of Dr. Lockwood. Barry, Polk, Lawrence, Stone and Greene counties have followed in line and are buying the book "Civics and Health" from the county superintendent, and are to read it aloud and discuss it with the teachers.

It would be a splendid movement if every county in the state and every physician in the state would join in this movement during the months of October, November and December.

TOO MANY CHAIRS

The following excerpt from an editorial in the *Interstate Medical Journal* points a common evil of the medical college situation of this country:

"But if the number of professors is on the increase what shall we say of the new chairs which our ambitious colleges are installing almost daily? In those restful days when anatomy, physiology, chemistry, the practice of medicine and surgery were the principal studies, the uninitiated mind of the medical student soon overcame the obstacles which lay in his path, and with a mind normally receptive profited by the instruction, even though the lessons did not bristle with those bewildering technicalities which the ordinary professor of to-day has but partially digested. Now, though we are not praying for a return of the simplicities of those early days, we would, nevertheless, consider it a boon, if some limit were placed on the number of studies which at present are achieving such vast proportions in the very colleges that have not the proper equipment to ground their students in what should be their principal studies—namely, the elementary. A slight return to unmodernness would not only benefit the students, but what is much more to be desired, would entail the number of professors, so that the flamboyance in connection with new studies, which is now made a lure to attract the unwary to colleges that have inherent weaknesses, would not be countenanced for a moment."

PROPOSED BILL TO AMEND THE STATUTES CONCERNING EXPERT TESTIMONY

Following is the bill proposed by the committees of the Missouri Bar Association and the Missouri State Medical Association to amend the statutes for the purpose of improving the status of expert testimony, especially of expert medical testimony:

AN ACT to amend Chapter 64 Revised Statutes of Missouri, 1899, entitled "Witnesses" by adding thereto six new sections to be known as Sections 4681, 4682, 4683, 4684, 4685 and 4686, regulating the employment, pay, and duties of expert witnesses in civil and criminal causes.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 4,681. Any Judge of any Court of Record shall in any cause, civil or criminal, pending before said Court, on his own motion or that of any party therein, at any time or during the trial thereof, when the ends of justice seem to require it and after notice to the parties and a hearing, appoint one or more disinterested skilled persons to serve as expert witnesses therein; provided, that the reasonable fees of such experts, as fixed by such Judge, shall be paid by the party moving for such appointment to the clerk of the court at such time as the Judge shall prescribe; and the fee allowed for the expert appointed by the Court of its own motion shall form part of and be taxed as costs in the cause. In criminal cases in the discretion of the Court, on request of the defendant, expert witnesses may be so furnished at the expense of the State, on such terms and conditions as may be prescribed by the Court.

Section 4,682. Such experts shall be sworn to make a faithful and impartial examination of the person or persons, matters and things submitted to them for investigation and opinion, and a true report to render according to the best of their knowledge, belief and understanding.

Such experts shall view and examine all persons, matters and things, read and hear all such evidence as may be necessary for their information, in such manner, and at such times and places, whether by attendance at the trial of such cause or otherwise, as the Court shall direct; and report their findings, views and opinions thereon, jointly and severally, in writing to the court wherein such cause shall be pending before or at the trial thereof in such manner as the Court shall prescribe; and such report or reports shall be filed among the papers in the cause, not as evidence, but as a basis for the examination of the expert witnesses who made it by the Court or counsel of either party; and for which purpose such experts shall attend at such trial until excused by the Court; provided, that such experts shall not be deemed the witnesses of either party, but shall be called by the Court, and that any party to the cause may further examine, or cross-examine, any such experts as to the persons, matters, things, views, findings, and opinions contained, mentioned or referred to in any such report.

Section 4,683. In any action pending in any of said Courts wherein damages shall be sought to be recovered for any injury to the body or health, physical or mental, of any person and wherein any expert or experts shall be appointed by any Judge under the provisions of the preceding two sections for the purpose of making an examination of the body and health of the person alleged to have been so injured, the Judge may require the person alleged to have been so injured to submit to a reasonable examination or examinations of his body and health, physical or mental, by the expert so appointed, at such time, and places as said experts may require to enable them to make their report thereon to the Court, and as the Judge shall prescribe; and thereupon such action shall be continued, if necessary, until the examination or examinations shall have been made. And in any such action the Court can upon the application of the plaintiff, require the defendant to permit the attorney of record of the plaintiff with any expert or experts appointed under the preceding two sections to view and examine the place and cause of such injury at such reasonable time and place and upon such terms and conditions as the said Court may direct.

Section 4,684. No expert witness shall be paid or receive or contract for, as compensation in any given case for his services as such, a sum in excess of the ordinary witness fees provided by law, unless the Court before whom such witness is to appear or has appeared by its written order filed in the cause, awards a larger sum. Any expert witness who shall directly or indirectly receive or contract for a larger sum than that to which he is legally entitled under this article, and any person who shall pay or contract to pay such witness a larger sum than that to which he is legally entitled, shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding one thousand dollars, or by imprisonment not to exceed one year, or both, in the discretion of the Court, and may further be punished for contempt.

Section 4,685. This Act shall not be construed as limiting the right of the parties to call other expert witnesses as heretofore.

Section 4,686. Fees for experts, except as provided in Section 4,684 of this article, shall not be allowed as part of the costs in any case, in excess of the fees allowed for ordinary witnesses. Provided, that in cases where either side introduces their employees as expert witnesses, the other side shall be permitted to employ expert witnesses without limitations herein provided for as to fee.

NOTES

DR. WILLIAM J. WILLIS of Sedalia and Miss Lulu E. Nichols of Springfield were married on September 1.

DR. G. B. LEMMON, city physician of Springfield, and Miss Mary Harrell of Pasadena, Cal., were married on September 1.

DR. JOHN ASHLEY of Springfield has been appointed a member of the State Board of Health in the place of Dr. J. A. B. Addock, whose term has expired.

DR. HENRY SCHWARZ, president of the St. Louis Medical Society, attended the annual meeting of the American Association of Obstetricians and Gynecologists at Syracuse, September 21.

DR. I. D. KELLEY, JR., of St. Louis will leave for Europe on October 1, for an extended period of study in the ear, nose and throat clinics of Berlin, Paris, Vienna, London and other medical centers.

DR. J. C. FALK of St. Louis and Miss Ida Curtman of the same city were married September 8. Miss Curtman is a daughter of the late Dr. Charles O. Curtman of St. Louis, scientist and author.

DR. W. S. WHEELER, health commissioner of Kansas City, has issued an order to bakers to wrap bread, pies, cakes, etc., in paraffin-coated paper. He has also ordered all employes handling bakery products to obtain certificates from reputable physicians that they are free from tuberculosis and skin diseases.

MEDICAL inspection of the public schools of Springfield will be inaugurated at an early date. The school board has requested the County Medical Society to cooperate in establishing inspection of school children, and the society appointed a committee to confer with the board. The committee consists of Drs. W. P. Patterson, F. B. Fuson and J. C. Matthews.

DR. LYDIA DEWITT has been appointed assistant bacteriologist at St. Louis in place of Dr. McConnell, who resigned to take the chair of pathology in Temple University at Philadelphia. Dr. DeWitt is the first woman physician appointed on the staff of any city institution in St. Louis. She is a graduate of Ann Arbor, where she was instructor in histology.

THE Alexian Brothers Hospital in St. Louis has opened a free dispensary for the treatment of poor persons in the southern part of the city. The staff of the dispensary will be composed of members of the medical department of the St. Louis University, and at present the following have been appointed: Nervous diseases, Dr. W. W. Graves; surgery and diseases of women, Drs. H. S. McKay and Carroll Smith; diseases of the eye, Clarence Loeb; diseases of the ear, nose and throat, Dr. W. M. C. Bryan; internal medicine, C. H. Neilson; skin diseases, Dr. J. W. Marchildon.

THE hospital board of St. Louis has converted the quarantine station, formerly used for smallpox patients, into a tuberculosis camp. Several cottages on the ground are now being used for the care of tuberculous patients, and 32 such cases have been transferred from the infirmary. As fast as the other buildings are made ready to receive patients, tuberculosis cases will be transferred from other institutions to the quarantine station. The name of this institution will be changed, but the rechristening has not yet taken place. Should any cases of smallpox develop they will be cared for in the isolation ward at the city hospital.

THE new infirmary building at State Hospital No. 4, Farmington, has been completed and is ready for occupancy. This addition to the hospital will accommodate 300 patients and increases the capacity of the institution about 33½ per cent. One-half of the building will be used for male patients and the other half for female patients. The structure is semi-fireproof, is quite imposing in appearance and is furnished with every modern convenience for treating insane patients according to the most advanced methods. It cost about \$46,000. This addition to the hospital has been named the "Harrison" building in honor of Dr. Frank Harrison, the former superintendent, now located at Sedalia.

MEDICAL SOCIETY OF THE MISSOURI VALLEY.—The annual meeting at Council Bluffs was an event of profit and pleasure to those participating in the excellent program presented. The oration in surgery was given by Dr. Norvelle Wallace Sharpe, of St. Louis, who delivered a most entertaining lecture on fractures of the femur, illustrated by skiagraphs and drawings.

Dr. George Howard Hoxie, of Kansas City, delivered the address in medicine. His subject, "Arthritis," was a most important one, in that the doctor proposed a new classification and nomenclature for the vague and indefinite classification which has heretofore been followed in this much-discussed class of diseases.

The presidential address by Dr. A. B. Somers comprised a review of the progress in obstetrics.

evinced a thorough knowledge of this subject and the modern conception of management of the lying-in patient.

The society endorsed the Owen public health bill, as well as condemning the use of all chemical preservatives in foodstuffs.

Officers elected: President, Dr. Donald Maerae, Council Bluffs; first vice-president, Dr. J. M. Banister, Omaha; treasurer, Dr. Thomas B. Lacey, Council Bluffs; secretary, Dr. Charles Wood Fassett, St. Joseph.

St. Joseph was selected as the place for next meeting, March, 1911.

CORRESPONDENCE

A PROFESSIONAL JOURNAL

Farmington, Mo., Sept. 26, 1910.

To the Editor:—Will you not accept this note of appreciation, which doubtless affects in a large measure the thought of the physicians of southeast Missouri. Permit, then, our congratulations on the improvement in the appearance of THE JOURNAL. Representing a profession, the ethical standards of which are so high, it is right and proper that in dress it should be clean and neat.

It is also a matter of congratulation to both the publication committee and the profession generally, that the attractive dress of THE JOURNAL is representative of its contents. Under the present editorship, it sustains a high character.

Not in the way of adverse criticism, but more as a friendly suggestion, may not the profession demand that the greatest care be exercised in excluding from the columns of the JOURNAL many advertisements that will not be endorsed by the entire body of regular ethical physicians?

Important and necessary as is the business office, it should never be permitted to encroach upon the editorial management, and under no circumstances do violence to the long time, and rightly established, ethics of our calling. As a medium for the exchange of views, the reporting of cases of interest, the keeping in touch with all modern developments of medicine and surgery, the JOURNAL may be made indispensable to the progressive practitioner, and invaluable to the profession. May you continue to conduct it as you have in the past in such a manner as to meet the approval of all regular physicians, and that, without a blush, we may refer to it as "OUR JOURNAL."

Faternally,

C. R. FLEMING, M.D.
Counelor Twenty-fifth District.

A NEW PROCEDURE IN RESECTION OF ESOPHAGUS

St. Louis, Sept. 23, 1910.

To the Editor:—In reply to yours of the 19th inst., inquiring as to my operation for the trans-

plantation of a portion of the small intestine, to replace the resected esophagus, I will say that I have not yet completed the technique, so that I am unable to publish it at present.

I have gone far enough, however, to be able to state that the operation is feasible and will allow the removal of a very considerable portion of the esophagus.

I hope very soon to be able to report the result of my experiments. When I do so I shall be pleased to publish it in your valuable journal.

Yours truly,

N. B. CARSON, M.D.

303 Humboldt Bldg.

HOW THE CANDIDATES STAND

Replies to our query in the last issue, how the candidates for congress stand on the question of establishing a federal department of health, are published below. Next month we will publish such additional replies as reach us before the November issue goes to press. The letters follow:

ST. LOUIS, Mo., Sept. 30, 1910.

I am in favor of any legislation or proposed measures, whether in federal or state government, that are intended to improve sanitary conditions and promote public health, and in my judgment such ends are of sufficient importance to justify the establishment of a new department of the government.

Yours very truly,

DAVID R. FRANCIS.

VERSAILLES, Mo., Sept., 25, 1910.

Yes, I will vote for a federal department or bureau of health on a square deal basis.

Very truly yours,

J. F. SCHMITTER.

COLUMBIA, Mo., Sept. 26, 1910.

I favor the Owen bill to establish a federal bureau of public health and think it one of the fundamental needs at the present time.

Respectfully yours,

WALTER BALLENGER.

ST. LOUIS, Mo., Sept. 27, 1910.

I should unqualifiedly support any measure having this end in view.

Yours very truly,

NATHAN FRANK.

ST. LOUIS Co., Mo., Sept. 26, 1910.

I believe that we should have a department of health, and I promise you that if I succeed in being elected I shall work, vote and do everything in my power to establish said department.

Yours respectfully,

JOHN JOSEPH HERZ.

ST. LOUIS, Mo., Sept. 25, 1910.

Will say with all the positiveness possible, yes.

Yours respectfully,

WILLIAM BRICE CUMBERLAND.

BILLINGS, Mo., Sept. 26, 1910.

As I now understand the Owen bill, if I am elected to Congress, I will vote for it.

Yours for humanity,

ELIJAH OSBORN.

JOPLIN, Mo., Sept. 24, 1910.

I am in favor of and am earnestly desirous to see, and if elected to Congress, will vote for, the establishment of a federal department or bureau of public health.

Respectfully yours,

W. H. DALTON.

CARTHAGE, Mo., Sept. 28, 1910.

I am for a federal department of health and shall lend my best efforts to establish the very best possible system if nominated and elected to the United States Senate.

Yours very truly,

STERLING P. BOND.

CHARLESTON, Mo., Sept. 22, 1910.

I will favor the establishment of a federal department or bureau of public health. Too much cannot be done along this line.

Yours very truly,

J. J. RUSSELL.

INFORMATION WANTED OF PREVALENCE OF INFANTILE PARALYSIS

St. Louis, Sept. 30, 1910.

To the Editor:—I am enclosing copy of letter which I am about to send to the members of the Missouri State Medical Society, questioning them for information on the prevalence of infantile paralysis in this state. I am also enclosing a set of questions which I intend to send with the letter.

I would be pleased if you would publish the letter and questions in *THE JOURNAL*, with a request that any physician who has not received my letter will please fill out the questions and mail them to me.

Yours very truly,

ARCHER O. REILLY.

Meropolitan Building.

Dear Doctor:—Infantile paralysis (anterior poliomyelitis) has increased in this country to an alarming extent in the last few years. Recently there have been extensive epidemics in Massachusetts, New York, Minnesota, Nebraska and other parts of the country. In these places anterior poliomyelitis has been studied very carefully and as a result marked progress has been made in our knowledge of the disease. Unfortunately, we still have much to learn concerning the etiology and modes of infection.

Many of the states have begun a systematic study of the disease and a record of cases is kept in their vital statistics. Missouri, however, does not do this and for that reason it is impossible to find out how prevalent the disease is in this state.

The number of cases at our clinics has recently increased, which would indicate that the disease was securing a foothold in Missouri. If so, we should all know it, endeavor to prevent its spread, if possible, and by studying each case carefully try to discover its cause and mode of transference.

In order to have some idea of the prevalence of poliomyelitis in this state, I am sending to each member of the State Medical Association this letter and a slip, which I request you to fill out and return in the enclosed envelope, as soon as possible. I shall publish the statistics obtained from the replies at an early date. Thanking you for your co-operation, I am,

Yours sincerely,

ARCHER O'REILLY.

Name.....

Address.....

(a) How many acute cases of infantile paralysis have you seen in the last five years?

(b) How many cases since January 1, 1910?

(c) Do you believe the disease is becoming more prevalent in your neighborhood?

(d) Have you seen any cases of flaccid paralysis following an acute illness in which the paralysis grew better and which was not diagnosed as infantile? If so, how many?

(e) Have you seen any cases of flaccid paralysis accompanying or following rheumatism, teething, etc.? If so, how many? Did the paralysis grow better?

(f) Were any of the above cases fatal?

(g) If so, was there an autopsy and what were the findings?

(h) Do you know of this disease being epidemic at any time in your neighborhood, or throughout the state? If so, please give date, location and number of cases, if possible.

(i) In your cases have you any idea as to the cause of the disease?

(j) Have you any idea as to how it was transmitted?

(k) Will you give any other details which you think would be of interest or value?

THE MISSOURI STATE SANATORIUM FOR INCIPIENT TUBERCULOSIS

To the Editor:—This comparative infant institution of our state, opened for patients August 17, 1907, has been the victim of considerable adverse criticism, chiefly if not entirely by those who have never visited it nor informed themselves accurately with regard to the points they criticized. Let it be remembered, to begin with, that our sanatorium is the first state institution of the sort west of the Mississippi River (unless Minnesota was ahead of us) and that therefore its management was forced, in a large measure, to do pioneer work. That minor errors should have been committed which others may learn to avoid seems natural enough, but, on the whole, the work of construction and administration has been well carried out and the institution is an assured success and a great credit to the state of Missouri.

Among the charges made, with loud voice, against the sanatorium are those of extravagant cost and faulty construction of buildings, and extravagant expenditure for the maintenance of the institution. The management is just now fortunate in being able to refute the first charge by quotations from a report made to Governor Hadley by Mr. Walter C. Root, of Kansas City, an architect of the highest reputation, recently appointed consulting architect to the institution. I quote extensively from Mr. Root's report to the

Governor, since it tells many of the things the doctors of our state want to know, and especially because it is the testimony of a competent and unbiased witness. Mr. Root says:

"I wish to make to you a rather extended report as to the Mount Vernon Sanatorium, for the reason that I know that the work of this institution has special interest for you, and your impression is that it has not heretofore fully justified itself.

"I went through all the buildings thoroughly and examined the general outside features with care. I was at the institution two days—Friday, when the Board was not present, and Saturday, when they were there—and every facility for looking into the details was afforded me.

"There are two ways to start an institution like this. One is to start at the patient's end, providing in temporary and makeshift ways for the administration, which, of course, in the long run, is expensive, though immediately cheap. The other is to provide the general permanent administrative necessities first and then provide for a larger number of patients. The latter plan, of course, defers the actual usefulness of the institution, but when the general work is done the development is very rapid and everything falls quickly into place.

"There are good arguments for both plans. One argument for the latter plan is that help is very difficult to obtain in such institutions and, if good facilities are not provided, the patients are not likely to have the expert care they require. The latter of the two plans projected has, as you know, been adopted in this institution.

"There is now an Administration Building, in which are the offices, living rooms for doctors, head nurse and all the staff. This Administration Building has a large rotunda, which is somewhat expensively finished, and excepting on very rare occasions, is of no special practical use.

"There is an excellent power house and model laundry. The power house is of adequate dimensions to contain machinery for a plant for 500 patients and, with the addition of one boiler to the boiler equipment already in, together with the additional unit which it is now proposed to buy, there will be enough machinery to accommodate 500 patients. The laundry has an excellent equipment under contract and will be a model, so far as the equipment and building are concerned, and of sufficient capacity to accommodate from 300 to 500 patients.

"A concrete tunnel of substantial character has been constructed, connecting the buildings, and containing the steam mains for a large group of buildings.

"An excellent modern system of sewers with septic tanks for sewage disposal has been installed, connecting the different buildings and providing easy main connection for future buildings.

"There are two pavilions, designed to accommodate about forty-eight patients. The number of applicants, however, has forced the management to accommodate from sixty to seventy.

"The only criticism that it seems to me possible to make on the patients' pavilions is that there is more accommodation in dressing-rooms than possibly might be necessary and by saving some money in the dressing-rooms in those buildings, possibly more patients might have been accommodated for the price of the building.

"A permanent water works arrangement is to be provided for and will be realized within the next few months under appropriations already existing.

"An ice machine has been installed, taking care of the manufacture of ice and the refrigeration of the main refrigerator boxes.

"An excellent kitchen of modern type is in commission, sufficient to do the cooking for an institution of 300 or more patients.

"The general scheme of grouping and orientation seems very good indeed, and in its main features should not be interfered with. In details it may, of course, develop along slightly different lines.

"Now, viewed by the most conservative standards and in view of the fact that all building material must come over a branch line, and has hitherto had to be hauled up the hill from the station, the cost has not been excessive. In a few details, as viewed by our western standards, there has been some waste, but these details are not of great moment, as it appears to me. If, having the theory of the first general policy outlined in view, one judges the present results, then there seems to be failure because of the extremely limited number of patients; but from now on the balance—if sympathetic support can be obtained—will be rapidly restored.

"The question as to whether the state is justified at this time in developing this institution would be determined, it seems to me, by whether the organization existing is effective, harmonious and delivering the goods. As it appears to me the personnel of the institution, as it is now constituted, is good. Dr. Stewart, the superintendent, appears orderly, authoritative and modern in his views and methods. The steward is an intelligent and efficient man who is energetically trying to develop and keep up the physical part of the enterprise.

"The buildings, grounds, patients and attendants appear clean and orderly, so that the executive end having been so far developed, the policy should now be rapidly to expand the accommodations for patients.

"In some details there is, of course, some ground for criticism, as there is everywhere, but in the main you have all your physical improvements well planned, soundly and substantially executed and at moderate cost."

The balance of Mr. Root's report not given above has reference to the new building for patients about to be constructed, which is to accommodate seventy patients.

The above report should be sufficient refutation of the charge made at one of the meetings of our State Society by a member who had never visited Mt. Vernon and who said of the sanatorium: "They have spent a world of money and have nothing to show for it!" Let the reader of the above judge for himself.

COST OF MAINTENANCE.

It is undoubtedly true that the cost of maintenance is high as compared with that of other state institutions. This is not due to the payment of high salaries, for the salaries are lower than those paid to the officers of other state hospitals. The cost of food must be higher, per capita, than elsewhere because the very essence of the treatment in a tuberculosis sanatorium must consist in the supplying of large quantities of the best and most expensive food to the patients. There must also be a much larger proportion of subordinate employes hired, because, from the nature of their malady, the patients cannot be put to work as cooks, chambermaids, farm hands, dairy hands, coal heavers, stokers, etc., as can be done and is done in hospitals for the insane and in other eleemosynary and penal institutions. Furthermore, the proportion of such employes to that of the patients will be far lower when the number of patients is increased.

We expect within a few months to be able to accommodate double our present number of patients, which will largely increase our revenue and will not very largely increase our force of employes.

It goes without saying, that an administration building, kitchen and dining room, servants' quarters, laundry, power house, refrigeration plant, water supply, sewers, etc., had to be provided for seventy-five patients (our present number) and it was doubtless wise and in the end more economical to construct these on a scale that would serve for several hundred patients in the near future rather than to build them in fragments. *Hereafter all moneys appropriated for building will be used for increased accommodation of patients.*

STATISTICS.

The following is a report of the admissions, discharges and deaths of patients since the opening of the Sanatorium:

<i>Patients Admitted</i>		<i>Discharged or Died</i>	
Free patients.....	337	Discharged,	341
Private patients... ..	92	Died	17
	429		358
Patients now at sanatorium.....		71	

Causes of Death

Advanced tuberculosis.....	12
Heart disease.....	2
Spinal meningitis.....	1
Typhoid fever.....	1
Pneumonia	1
Total	17

Ages

Patients below 10 years of age.....	7
From 10 to 20 years of age.....	86
From 20 to 30 years of age.....	167
From 30 to 40 years of age.....	103
From 40 to 50 years of age.....	46
From 50 to 60 years of age.....	16
From 60 to 70 years of age.....	4
Total	429

I cannot at this time furnish a statement for the entire period of the number of discharged cases apparently arrested, improved and not improved. Such a report was published by our late superintendent, Dr. O. H. Brown, in this JOURNAL, April, 1910, embracing a period ending December 31, 1909, and made a very good showing. About the same ratio has been maintained this year, the details of which will be published later.

ADVANCED CASES.

From the number of deaths reported it is evident that we are not receiving incipient cases only, as is the design of the institution, nor only those moderately advanced, but an altogether undue proportion of far advanced cases. This should not be, and we earnestly appeal to our medical examiners everywhere to come to our rescue in this matter and to recommend for admission only early cases offering a reasonable probability of recovery. It is evident that when, from the erroneous report of the home examiner, an advanced case has been admitted, the patient being a charity case, and when, on the urgent appeal of our superintendent, neither the county authorities nor the patient's friends consent to receive him back again, we are helpless. It is some slight consolation to know that the Missouri State Sanatorium is not the only one that is thus done injustice to, since the same complaint comes from state institutions in New York, Pennsylvania and elsewhere.

The definition of an incipient case, as adopted by the National Society for the Study and Prevention of Tuberculosis, is as follows: "Slight initial lesion in the form of infiltration limited to the apex or a small part of one lobe; no tuberculous complications; slight or no constitutional symptoms (particularly including gastric or intestinal disturbance or rapid loss of weight); slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours, especially after rest; expectoration usually small in amount or absent; tubercle bacilli may be present or absent."

There is much more concerning our work that I would like to say to the profession through the pages of the JOURNAL, but I feel that I have occupied more than space enough already.

The work being done at Mount Vernon is good, clean, honest, scientific work. The more the doctors of Missouri know it the more highly will they esteem it and the more cordially will they support it, not forgetting to urge upon their representatives at our next General Assembly to vote a liberal appropriation for the maintenance of this youngest, most scientific and most hopeful of our state charities.

E. W. SCHAUFFER, M.D.,
Member Board of Managers.

NOT ON FACULTY OF AMERICAN MEDICAL COLLEGE

ST. LOUIS, Mo., Sept. 15, 1910.

To the Editor:—I wish you would state in THE JOURNAL that I am not connected with the American Medical College at St. Louis. The inclusion of my name in the announcement of that college was done without my authority or knowledge. I do not believe we are in need of any more colleges, and consequently I would not aid in building up another. I resigned from a good college because I desired freedom in a medical way, and I would certainly not connect myself with another medical college.

Yours truly,

J. R. LEMEN, M.D.

ESPERANTO MAGAZINE

SEPT. 16, 1910.

To the Editor:—Doubtless you have long ago formed your opinion as to the merits of Esperanto, the international language. I hope that it is favorable; but as there is much irresponsible criticism of Esperanto, especially on occasion of the recent international convention in Washington, I want to offer an opportunity for every thinker to judge for himself. I have had prepared 100,000 brief grammars of the language in pamphlet form, and will send one free to any person who is sufficiently interested in it, enclosing stamp for reply. I think it really due to this great movement for an international auxiliary language, which now embraces fifty nations in its scope, that you publish this letter, so that your readers may have the opportunity of judging for themselves.

Very cordially yours,

ARTHUR BAKER.

Editor Amerika Esperantisto.
700 E. 40th Street, Chicago.

P. S.—If at any time you desire late and authentic information concerning Esperanto, command me.

COUNTY SOCIETY NOTES

CALDWELL COUNTY MEDICAL SOCIETY

On Labor Day Caldwell County Medical Society held a public meeting at Breckenridge and Dr. C. O. Dewey addressed the audience on the prevention of tuberculosis. The attendance was not large but the endeavor of the county society to interest the general public in this absorbing question was highly appreciated by those who assisted the physicians in preparing for the meeting, and the county society was asked to hold another meeting when it is hoped that a larger number of the people will attend. The ministers, club-women and other public spirited citizens took an active part in the work and promised to advertise the next meeting extensively throughout the county. The Labor Day meeting would have attracted a much larger audience had the weather and the road conditions not prevented many persons from attending.

GEORGE W. GOINS, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

Cape Girardeau County Medical Society met in the Commercial Rooms at Cape Girardeau, August 8. Members present: Drs. Cunningham, Howard, Moore, Schulz and Wilson.

Program rendered as follows: Paper entitled "Abdominal Pain," by Dr. Schulz. The doctor pointed out the so-called points of referred pain as an aid in diagnosis, but on reporting two cases of appendicitis which he had very recently, all signs failed. Appendix removed, specimens demonstrated and patients have had no signs of trouble since.

Reports of cases as follows: Antrum abscess in a child six weeks old, by Dr. Moore. Blue Baby, by Dr. Cunningham. Appendicitis, by Dr. Howard. Gallstones with renal colic, by Dr. Cunningham.

Meeting at Jackson, September 12.

Members present: Hays, Henderson, Moore, Schulz, Statler, Wilson; visitor, Dr. Denney, Eureka, Mo.

Paper by Dr. Henderson entitled "Peritonitis." This paper outlined the old as well as the newer treatment, and numerous cases from practice were reported, with good discussion.

E. H. G. WILSON, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

After a two months' vacation the Greene County Medical Society met in regular session September 9 and took up the work for the coming fall and winter. There were fifteen members and one visitor present.

Dr. D. E. Standard read a carefully prepared paper entitled "Some Ruts in Medicine," which was listened to very attentively by the society.

The society lost one member, Dr. F. E. Ross, by death, during the summer vacation. Dr. Ross, at the time of his death, was the oldest practitioner in the city, having practiced here for more than forty years. He was well and favorably known over this and adjoining counties. Dr. Sherman appointed a committee consisting of Dr. D. B. Farnsworth, Dr. W. M. Smith and Dr. W. A. Camp to draft resolutions of respect on the death of Dr. Ross.

Dr. W. P. Patterson, on behalf of the school board, asked the society to assist in formulating a system of medical inspection of school children. The methods in use in Kansas City, Joplin and other cities were explained and thoroughly discussed. A committee

consisting of Drs. Patterson, Fuson and Matthews was appointed to meet with the school board and assist in formulating and inaugurating a system of medical inspection of school children.

The society adjourned to meet September 23, at which time Dr. R. L. Pipkin will read a paper on "Enterocolitis."

THOMAS O. KLINGNER, M.D., Secretary.

LAFAYETTE COUNTY MEDICAL SOCIETY

The Lafayette County Medical Society met in regular session at Lexington, September 13, with the following members present: Dr. J. A. Mann, president; Drs. Fredendall, Roberts, Cope and Fulkerson of Lexington, and Drs. Williams, Barclay and Clayton of Odessa.

The resignation of Dr. E. A. Hoefler of Higginsville as secretary was read and accepted by the society, and Dr. P. B. Clayton of Odessa was elected to fill the unexpired term.

A clinical case of neurological interest was presented by Dr. Cope, and after a general discussion the society adjourned to meet October 11, at Odessa.

P. B. CLAYTON, M.D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY

A regular meeting of the Platte County Medical Society was held at Dearborn, September 7, at the residence of Dr. Ratcliff. The attending members were very cordially entertained through the hospitality of the Dearborn physicians. Members present: Drs. A. S. J. Smith, M. H. Moore, J. M. Hale, Spence Redman, E. R. Hull. Dr. Ratcliff was a very welcome visitor.

Papers read: Hay Fever, by Dr. M. H. Moore; The Commoner Diseases of the Eye, by Dr. J. M. Hale; Naso-Pharyngitis, by Dr. E. R. Hull.

The above papers and discussions were quite interesting. We had a good meeting which was enjoyed by all present.

Next regular meeting to be held at Parkville, Mo., October 5. We expect a good time and a good meeting. The program for that meeting is: Rheumatism and Allied Diseases, Dr. J. Underwood, Parkville. Discussion opened by Dr. G. D. Yokum, Parkville. Acute Inflammatory Diseases of the Kidneys, Dr. H. M. Clark, Platte City. Discussion opened by Dr. F. M. Shafer, Edgerton. Headache, Dr. A. S. Herndon, Camden Point.

All physicians are invited to attend. We always have a meeting; be sure to come; you are welcome.

E. R. HULL, M.D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY

Moniteau County Medical Society held its regular quarterly meeting at Tipton, Mo., September 8. The following members and visitors were present: Drs. Patterson, Lang, H. B. Marsh, Wilson, Robertson, Freudenberger, DeVilbiss, Cole, Redman, Fry, Elliot and Williams.

Dr. H. B. Cole of Sedalia was an invited guest and read a paper on "Appendicitis." This was a carefully written, conservative, powerful and scholarly paper. It was discussed by almost every doctor present and received general commendation.

Dr. W. R. Patterson is to sever his relations with the Moniteau County Society and locate in Warrensburg, Mo., and accordingly a committee was appointed to draw up resolutions to show the respect and esteem in which this society holds Dr. Patterson.

On motion the society voted to hold an open session on the evening of December 8, to be held in Tipton, Mo., devoted to the discussion of the subject sanitation and hygiene.

H. C. FREUDENBERGER, M.D., Secretary.

NEW MADRID COUNTY MEDICAL SOCIETY

The New Madrid County Medical Society met at Marston, September 5, Dr. Joseph Grindon of St. Louis, who had been invited to visit our society and give us an address, delivered a very pleasant and convincing argument on the advantages of county, state and American Medical Association organization work. He also gave a very interesting talk on several patients presented by several members of the society.

Dr. W. A. Sibley reported an interesting case of purpura hemorrhagica, with the presentation of the patient.

Dr. George Gellhorn of St. Louis was expected to be with us, but a letter received the morning of September 5 advised us that he could not come. Dr. Allen of Bernie, our councilor, was expected to attend and give us a talk, but could not do so.

Dr. Frank O'Kelly of Portageville was elected to membership and the application of Dr. H. A. Killion was filed with the board of censors.

A resolution previously submitted, which provided that our regular meetings be held quarterly, the third Tuesday evening of February, May, August and November was adopted. The presiding officer appointed Dr. J. B. Bell and Dr. Duncan as a committee on resolutions on account of Dr. Atkisson's death.

As a visitor Mr. Wm. O'Bannon of New Madrid, who is pursuing his studies of medicine in St. Louis, was present.

At 8 o'clock Dr. Grinden addressed a public meeting at the city hall. His remarks were well received, the attendance and attention was excellent. Supper was served by Mesdames Sibley and Timberman, at which the members of the society had the pleasure of meeting Mrs. Grinden, who accompanied the doctor.

Next meeting, Tuesday, November 15, at Portageville, 8 p. m.

J. H. TIMBERMAN, M.D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY

Shelby County Medical Society met May 31 in Shelbyna. The vital statistics law was discussed and though there had been some dissatisfaction it was thought that in time it would be satisfactorily carried out.

Dr. Ferguson read a well prepared and practical paper on "Meningitis," with report of a case.

Interesting clinical cases were presented by Drs. Pollard and Wood.

Those present were: Drs. Ferguson, Vaughn, Farr, Carson, Roy, Musgrave, Smith, Owen, Wood, Pollard, Battersby and McCully.

Meeting of September 8.

The Shelby County Medical Society met in the Club Rooms at Clarence, September 8.

Dr. Wood reported a clinical case which was diagnosed as incipient tuberculosis with but few symptoms; it was discussed freely.

Dr. Musgrave read an excellent and much appreciated paper on "The Internal Secretions." The paper showed exhaustive study of this complex subject and explained many of the empiric uses of drugs.

Dr. Nickell reported a case of anterior poliomyelitis; he warned against a hasty diagnosis in children in which symptoms tended toward this affection. Though not largely attended this was an interesting meeting.

A. M. WOOD, M.D., Reporter.

ST. LOUIS MEDICAL SOCIETY

The meetings of the St. Louis Medical Society were resumed on September 17, when the obstetrical and gynecological section held a session.

Dr. Oscar H. Elbrecht reported a case of congenital cystic kidney and presented the specimen. Dr. Percy H. Swahlen presented a monster with six fingers, six toes and an encephalocele. Dr. Robert F. Amyx demonstrated a double dermoid cyst. The papers of the evening were: "Elephantiasis Labiorum, with Presentation of Specimen," by Dr. F. J. Taussig. "Premature Separation of the Normally Inserted Placenta, with Report of Case," by Dr. W. H. Vogt.

Meeting of September 24—Surgical Section.

The surgical section held an interesting session and discussed the following program: Dr. C. H. Dixon reported a case of carcinoma of the lower lip, presenting the patient and giving history of the case. Dr. W. D. Aufderheide and Dr. A. H. Meisenbach reported a congenital cyst of right lobe of liver; excision; recovery. Presentation of specimen and patient.

Dr. Wiley Broome read a paper on "The Surgery of Tetanus."

Meeting of September 28—Oto-Laryngologica Section.

The subject for the evening was a case reported by Dr. I. D. Kelley, Jr., of "chronic mastoiditis and cholesteatoma, complicated with sinus thrombosis and internal jugular vein thrombosis; operation. Demonstration of the patient and specimen."

BOOK REVIEWS

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by Leighton F. Appleman, M.D., Instructor of Therapeutics, Jefferson Medical College, Philadelphia. June, 1910. Lea & Febiger: Philadelphia and New York.

This volume of Progressive Medicine contains a very elaborate discussion of hernia by William B. Coley and a contribution on the surgery of the abdomen, exclusive of hernia, by Edward Milton Foote. Other articles are by John G. Clark, Edward Jackson and Alfred Stengel.

The September volume of Progressive Medicine contains extensive reviews of the following subjects:

Diseases of the Thorax and Its Viscera, including the Heart, Lungs and Bloods Vessels, by William Ewart, M.D., F.R.C.P. Dermatology and Syphilis, by William S. Gottheil, M.D. Obstetrics, by Edward P. Davis, M.D. Diseases of the Nervous System, by William G. Spiller, M.D.

This issue contains 338 pages, including a comprehensive index.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By H. C. Woods, M.D. Published by J. B. Lippincott Company: Philadelphia and London.

The arrangement of the subject matter in this well-known work is logical and scientific. The physiological action of remedial agents studied according to scientific methods, as set forth in this work, does much to clear away the useless therapeutic rubbish of past ages, and brings to the physician remedies of known values. This work should be in the library of every physician, for the future development of therapeutics depends on the lines of physiological investigation as laid down in this excellent work.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

NOVEMBER, 1910

Number 5

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EDITOR

PUBLICATION COMMITTEE { M. B. CLOPTON, M.D. Chairman
A. W. McALESTER, Jr., M.D.
M. C. SHELTON, M.D.

ORIGINAL ARTICLES

THE SURGEON AND HIS WORK*

ORATION ON SURGERY

FRANCIS REDER, M.D.

ST. LOUIS, MO.

It is a pleasant gratitude that my inner heart mirrors in appreciation of the honor and the courtesy extended to me by the members of this Association.

Standing at the head of the medical profession and its numerous specialists, foremost as a life-saver among the preservers of the human race, is the surgeon. His work is such a marked and monumental difference from the labors of his brethren that his class is not only separate, but distinct.

The evolution of surgery during the last century was made possible by giving to mankind the most beneficent gift that chemical and medical science could confer, the discovery of anesthesia and asepsis.

It may be of interest to recall the discovery of ethyl ether by Valerius Cordius in 1540, and that of chloroform, by Soubéiran in 1831 and by Liebig in 1832. Both discoveries were made without the slightest idea of the blessings these liquids were to bestow on humanity through their use as anesthetics.

To Dr. William T. G. Morton, a dentist practicing in Boston, the surgeon owes an everlasting debt of gratitude for discovering the anesthetic qualities of ether. This great achievement was accomplished on Sept. 30, 1846, when the doctor boldly and heroically made the necessary experiment upon himself to be able to determine the true anesthetic worth of the drug.

To Dr. James Y. Simpson, a practicing physician of Edinburgh, Scotland, who, only a year

later, discovered the anesthetic properties of chloroform, the surgeon bows in grateful acknowledgement of the great service this dear man has rendered to humanity through his discovery.

To the surgeon the thought of these great achievements instills in him a feeling of joyous sadness, so wonderful to him are these discoveries. There was a rather comical side to these experimentations, and when one looks upon the kindly face of this Scotchman, whose lectures in later years brightened the gloomy days of the Edinburgh winters, the serious aspect of the little seance that took place in this great doctor's dining-room on a November evening in 1847 becomes somewhat masked by the comedy it created.

The description is essayed by Professor Miller, a neighbor of Simpson's, who was wont to look in every morning at 9 o'clock to see how the enthusiasts had fared in the experiments of the previous evening.

"Late one evening (it was Nov. 4, 1847)," writes Professor Miller, "on returning home after a weary day's labor, Dr. Simpson, with his two friends, Drs. Keith and Duncan, sat down to their somewhat hazardous work in Dr. Simpson's dining-room. Having inhaled several substances but without much effect, it occurred to Dr. Simpson to try a ponderous material which he had formerly set aside on a table, and which, on account of its great weight, he had hitherto regarded as of no likelihood whatever: that happened to be a small bottle of chloroform. It was searched for and recovered from beneath a heap of waste paper, and with each tumbler newly charged the inhalers resumed their vocation. Immediately an unwonted hilarity seized the party—they became bright-eyed, very happy and very loquacious, expatiating on the delicious aroma of the new fluid. The conversation was of unusual intelligence and quite charmed the listeners—some ladies of the family and a naval officer, a brother-in-law of Dr. Simpson. But suddenly there was a talk of sounds being heard like those of a

* Read at the annual meeting, Missouri State Medical Association, Hannibal, May 3, 1910.

cotton mill, louder and louder: a moment more and then all was quiet, and then—erash! On awakening, Dr. Simpson's first perception was mental. 'This is far better and stronger than ether,' said he to himself. His second observation was to note that he was prostrate on the floor, and that among the friends about him there was both confusion and alarm. Hearing a noise, he turned and saw Dr. Duncan beneath a chair, his jaw dropped, his eyes staring, his head bent half under him, quite unconscious, and snoring in a most determined and alarming manner. More noise still and much motion, and then his eyes overtook Dr. Keith's feet and legs making valorous attempts to overturn the supper table, or, more probably, to annihilate everything that was on it. By and by, Dr. Simpson having regained his seat, Dr. Duncan having finished his uncomfortable and unrefreshing slumber, and Dr. Keith having come to an arrangement with the table and its contents, the sederunt was resumed. Each expressed himself delighted with the new agent, and its inhalation was repeated many times that night, one of the ladies gallantly taking her place and turn at the table, until the supply of chloroform was fairly exhausted. The lady was Miss Petrie, a niece of Dr. Simpson. She folded her arms across her breast as she inhaled the vapor and fell asleep crying, 'I'm an angel. O! I'm an angel.' The party sat discussing their sensations and the merits of the substance long after it was finished. They were unanimous in considering that at last something had been found to surpass ether."

Such was the introduction to the surgeon of an agent that robbed many of the horrors of his work. In those days, the days before anesthesia, the surgeon's work must have been a task unable to be fully comprehended by the present-day surgeon. How the powers of anesthesia affected a great sympathetic surgeon is evidenced in a letter written by Dr. G. M. Angell, of Atlanta, who witnessed the first public demonstration of surgical anesthesia with ether at the Massachusetts General Hospital, in Boston, on Oct. 16, 1846. Dr. Angell's letter is of such interest to the physician and surgeon alike that I wish to quote it:

My recollection of the event extends to the winter of 1846 or 1847 while attending my last course of lectures in the medical department of Harvard University.

Dr. John Warren was president of the medical department at Harvard and chief surgeon of the Massachusetts General Hospital. Some time about the middle of the lecture term a rumor was circulated among the students of the medical quarter in the city that an agent had been discovered which would do away with the pain of a surgical operation, however severe. At length it was announced that at the next operating day at the hospital, Dr. John Warren would perform an amputation of a leg and would make use of this agent as an experiment.

This statement reached the newspapers of the city and excited much discussion among surgeons and phy-

sicians of Boston and the surrounding country. On the morning of the day appointed for the operation I went as usual to the hospital, but much earlier, as I anticipated from the great reputation of Dr. Warren and the importance attached to the experiment that there would be a large attendance at the clinic.

When I arrived a very large crowd had already assembled in front of the hospital, reaching out to the sidewalk and street, but the door was kept closed until the usual hour of opening arrived. I passed in by a private door with a student; we went directly to the operating room and chose our seats. This room was a vast amphitheater with terraced seats rising in a circle on three sides of the room almost to the ceiling. In front of these seats and separated from them by a low railing was the operating stage, a door leading out from it into the wards of the hospital.

My companion and myself took our seats close to the railing and directly opposite to where the operating table stood, and impatiently awaited events. Meantime, the crowd outside increased to such an extent that when the hour arrived and the doors were opened the great hall was filled to overflowing with the rushing host, which filled the seats and aisles to their utmost capacity.

Dr. John Mason Warren, son of Dr. Warren, Dr. Bigelow, son of the professor of theory and practice in Harvard, and Dr. Parkman had just entered on their professional career, and all of them, in subsequent years, became celebrated as authors and practitioners.

Presently Dr. Warren, Sr., came in, and soon after a young man having in his hands a glass globe, perhaps 8 inches in diameter, with a mouthpiece attached and a hole in the top, stopped with a cork, containing a clear liquid; we did not know what it was.

I was not personally acquainted with this gentleman, but it was whispered around among the seats that this was Morton, the reputed discoverer of the agent which was to be experimented with.

Very soon the ward attendants brought in the patient who was to be operated on, a young woman about 24 or 25 years of age, and laid her on the table. The three young attendants arranged themselves in line on the opposite side of Dr. Warren, Sr. Morton leaned against the railing a few feet from where we sat, holding the globe in his hands.

Dr. Warren commenced to speak, and a profound silence reigned throughout the room. He referred to the disease which rendered the operation necessary (necrosis of the knee-joint), and commented on its nature quite fully; spoke of the remedial measures which had been adopted; that they had all proved abortive, and that the limb must be sacrificed.

In all this there was no deviation from the usual custom before an operation; he was the same quiet, dignified old gentleman as when talking to a few medical students sitting on the benches. After finishing these remarks he turned a little more, facing the audience, and said that he had been forty years a surgeon in the city of Boston, and that from time to time during that period persons had come to him and said that they had an agent which would do away with the pain of a surgical operation. On account of the great blessing it would be to the human race if such an agent could be discovered, he had heard what they had to say and if he thought there was no danger to be apprehended from the remedy, and if they were persons whose character and standing seemed to entitle their opinions to respect, he had made the experiment desired. He had tried galvanism, magnetism and hypnotism. There was a curl of the lip as he announced these agents, which we very well understood to mean that he had no confidence in any of them. "But," continued he, "in every instance when the knife was applied to live tissue there was pain. And now we have a gentleman here (turning to Mr. Morton) who

tells us that he has a liquid preparation, by the inhaling of which the pain will be entirely done away with in the operation. He has furnished abundant evidence of his having administered it frequently in minor surgical operations, and that no pain was felt and no injury accrued to the patient." Then, addressing Mr. Morton, he requested him to come forward with his agent.

Morton came up to the table, put the mouthpiece to the mouth of the patient, giving her a few whispered directions, and took the cork from the hole in the top of the globe. Imagine, if you can, the death-like stillness that pervaded that great audience for the next few minutes. The patient's eyes were closed as one in sleep, the chest rose and fell as in deep natural sleep.

I was not more than 6 feet from the patient and could see every motion. The silence was broken by Morton taking the mouthpiece from the patient's mouth. He said in a loud voice to Warren: "She is ready for the operation, sir." Dr. Warren replied, very gently, at the same time searching for a pin on the lapel of his coat: "You think she'll not feel any pain now, do you?" Mr. Morton said: "No, sir." Warren had found a pin, took up the arm of the patient and forced the pin into it, at the same time looking at her countenance. He repeated this two or three times; she did not change the muscles of her face. He then turned quickly, picking up a catling, and made a rapid incision through the integuments and superficial layer of the muscles. The operation was circular and at the lower third of the thigh.

He stopped an instant and looked earnestly into her face; she showed no signs of pain, not a muscle moved. He finished the division of the muscles, sawed off the bone, put the leg under the table in front of him. He stepped aside, crossed his arms behind him and said, "John, tie those arteries," sponged off the stump, put in, as customary in those days, three stitches and commenced to put on the straps. All this time the old gentleman was traveling back and forth across the stage, and as he passed by he would look down into the patient's face. Just then she turned her head a little to one side and gave a groan, like one coming out of her sleep.

The old gentleman took hold of her sleeve and called her name; she looked up at him in a dazed manner and said, "Sir." "I guess you've been asleep, Jane," he said. "I think I have, sir," she replied. "Well, we brought you here for the purpose of performing the operation on your limb. Are you ready for the operation?" "Yes, sir," she said, "I am ready." He reached out, picked up the limb, showed it to her and said, "It is all done."

I have no ability to describe, nor shall I attempt it, the scene which followed. Men seemed beside themselves with joy; they clapped their hands, stamped and yelled until the building seemed to reel; pandemonium seemed let loose.

During this *mêlée* the patient was carried into the ward and put into bed. Warren was still walking to and fro on the stage, apparently oblivious to everything. The audience, thinking that he would make a speech, gradually quieted down. When they were still the old gentleman turned around and, facing the audience, said: "We have seen what we have seen. At some future time I may have something to say about it, but to-day, nothing."

The audience dispersed, the physicians hurried to their offices, those out of town to their homes, and the students to their books, and the greatest discovery of the nineteenth century was an accomplished fact.

It is well that we, who are the heirs, should know how Morton and Simpson relieved suffer-

ing humanity from the merciless clutches of pain, and made it possible for the surgeon no longer to steel himself for the task as formerly, no longer to wear a stern aspect, nor to adopt a harsh manner to enable him to perform his work with the calm deliberation that it demands.

Seventeen years after the discovery of anesthesia came the wonderful invention of the antiseptic treatment of wounds, whether the result of accident or of surgical intervention. These two discoveries, together, enabled the surgeon to perform his work painlessly, and to obtain the best results possible in the field of surgical art.

Antiseptics, a term whose meaning is even understood by the laity, was first defined as pertaining to modern ideas of wound treatment by Pasteur, who demonstrated the causative relation of bacteria to fermentation and putrefaction, and thus suggested that the phenomena which occur in infected wounds are due rather to the entrance of something from without than to some cause from within. Previous to the observations and experiments of Pasteur the accepted idea among scientists as to the cause of inflammation and formation of pus, incident to the larger percentage of wounds whether accidental or surgical, was based on the so-called humors of the blood. Just what these were is hard to define. Vague, indefinite and undecided, the descriptions and explanations were as numerous as the observers. Pasteur, however, in those brilliant studies and experiments that commenced originally with the yeast plant, proved that micro-organisms, known as bacteria and microbes, were the active agents in all specific inflammations. From this trifling beginning has been elaborated the work of the bacteriologist and the pathologist of to-day.

The first man, however, to apply practically the experiments of Pasteur to the solution of the problem of modern surgery was Sir Joseph Lister, born April 5, 1827, at Upton, England. For more than thirty years he was professor of surgery at Edinburgh, Glasgow and London, successively. He labored on untiringly, long after his genius had made him world famous. Few men living, if any, have received such world-wide honors as have come to him in his old age. This remarkable man is still living, and is looked upon as the greatest benefactor of the human race. His experiments, so exhaustive, advanced surgery to the plane of safety.

Previous to this such a thing as a wound healing by what is called primary intention, that is, without inflammation and formation of pus—the attendant pain and fever, frequent painful dressings and often death in graver operations—was the bane of the surgeon's work.

The surgeon had continually before his eyes the dreaded picture of erysipelas and hospital gangrene. The look of horror and evidence of suffering which the drawn face and pinched nose

so often indicated were not the least among the elements the surgeon had learned to dread. To-day a different state of affairs exists. As an outgrowth of the inspired genius of Pasteur and Lister, pus, inflammation and, frequently, pain, as attendant upon the surgeon's work, have melted away as the mists before a morning sun.

The surgeon now approaches his patient with the knowledge that all will go well, that no link in the chain of technique has been broken. Operations of a most severe character are performed with the utmost impunity, no part of the living body remaining exempt from invasion. The work of the surgeon to-day means a service of cleanliness, not as understood ordinarily, but a chain in which every link is constructed and examined separately and is made perfect in the fullest sense. Surgeon, patient, room, tables, instruments and dressings, all go through the same modified course, even the clothing worn by the operator and his assistants being especially prepared. In his work nothing is left undone, nothing taken by chance, every element that could by carelessness do mischief, however small, being eliminated.

Ideal conditions are hard to find, yet the surgeon of to-day, by his unflagging attention, works with sterile instruments and surgically clean hands upon a surgically clean operative field. If the surgeon wears rubber gloves, now an invaluable adjunct to his work, he has the positive assurance that his hands are sterile. Constant improvement has made this possible, and asepsis, following antiseptis, has produced the triumphs of modern surgery.

In this extraordinary development of the latter part of the nineteenth century we find in the surgeon's work a greatly decreased danger, followed by a greatly increased number of operations, as a result of which the rapid advance in the surgeon's technical skill was followed by a still further decrease in the dangers of operation, and hence a justified readiness to adopt operative treatment for many diseases which were formerly considered to be fit only for prolonged medical palliation.

It was to be expected that as soon as the advances due to asepsis had been thoroughly assimilated an era of indiscriminate operating would spring into existence. It is one thing to be obliged to operate; it is quite another thing, when it resolves itself upon the ability and skill of the surgeon, to decide whether or not an operation is necessary. The dictates of a surgical conscience, which should constitute fully one-half of the soul of a surgeon, enters with as much reverence and weight into the solving of this vital question now as it did during the time of the preantiseptic age, when operations were undertaken only as a last resource to save life, and when the surgeon would ask himself before contemplating a serious opera-

tion, "Am I conscientiously entitled to inflict deliberately upon my fellow creature with my own hands the imminent and immediate chance of death for the problematic and prospective chance of his future improved health and prolonged life?" We can readily glean from these words what the state of surgery was at that time.

In our present era of good fortune which has come to us we already see that the successful surgeon of the immediate future, or, rather, the man who is to-day qualified for further success, is not the mere operator, but is rather the man whose knowledge of symptomatology, of the natural history and physiology of surgical disease, either untreated or under medical treatment, enables him to choose wisely those cases which should be subjected to the knife, and to separate them from those in which operative treatment will not do symptomatic good comparable to the risks and disadvantages of operation.

A satisfactory solution to such a difficult problem, where operable conditions must be distinguished from inoperable ones, can, of course, only come to the surgeon whose work has carried him into those wide channels where severe experiences, with their sleepless nights and hours of nerve-racking unrest, bring to him that judgment so necessary in his work.

The young doctor who, through his visits to the operating theaters, where conditions are unavoidably more or less dramatic, has become imbued with the desire to become a surgeon, can well afford to consider this step in its most serious aspect. That the work demands the skill of a man not only well trained as a physician, but also thoroughly educated in the various branches akin to the surgical art, so he may recognize the sound from the unsound, the normal from the abnormal, goes without saying. His technical knowledge to be able to perform operations must be the fruit of several years' work with a well-trained surgeon, and from observations during his visits with master surgeons at the various clinics in the world's great centers of learning. The expectant surgeon can consider his time at these clinics well spent. Such visits should invariably be made after he has served his assistantship, which should not be less than three years, with an active surgeon. If the prospective surgeon possesses a special aptitude for surgery he will readily appreciate the various techniques of the different masters at work. He will be impressed with the characteristics of the surgeon, his demeanor and manner in the operating theater. He will note in particular the manner in which the scalpel is manipulated by the steady hand, for few of the qualities of the operator are more quickly noticed by a spectator than the facility, or even grace, with which his movements are executed. He will observe how deftly bleeding vessels are clamped and ligatured, and how delicately the various

structures are dealt with as the progress of the operation reveals them to view. He will also be placed in a position to judge the value of a needle-holder as he observes with what skillfulness this instrument is made to respond to the will of a surgical hand. These are cardinal points that appeal to the young surgeon, because he has already been impressed during his assistantship with the proper respect for the magnitude of small things that count for so much in surgery. After his visit to these clinics is over, and the fruition of his observations has further convinced him that the success of a surgeon depends not only upon mere handicraftsmanship, but upon precision of knowledge, precision in judgment and the surest sense of confidence, self-possession and equanimity, he will feel in his heart that his own right to perform grave surgical operations remains to be demonstrated by the successful issue of his work.

If the young doctor is endowed with a sympathetic and cheerful manner, good health and the physical strength so essential to carry out the strenuous work of a surgeon, and if good fortune favors his work at the beginning of his career with pathologic conditions of a non-malignant nature (and it may be well for some of the young surgeons to meet with such conditions early, that their enthusiasm and ambition may be somewhat controlled and restrained), such a young doctor can see before him the dawn of a brilliant future.

All this is most encouraging to the aspiring young surgeon, yet with all the hard work and necessary training to fit him for the grave duties of surgery, it has been my lot to know several physicians who, in a comparatively short time, admitted that they were failures and abandoned the field. And how did it happen that these well-trained physicians made failures when they entered the realm of surgery? In one instance a severe hemorrhage during an abdominal operation, in which the patient almost perished, so unnerved the surgeon that he "lost his grit," as he expressed it. He laid aside the scalpel and is now a physician with a reputation for diseases of children. In another instance the disappointed surgeon informed me that it was one thing to do operative work while being an assistant, and that it was another thing to do operative work and shoulder the great responsibility attached to it. He felt that he was aging rapidly under the strain and thought best to enter a field more suited to him. This conscientious physician is now a splendid internist. Another instance was that of a young surgeon, full of promise, who fought hard to rid himself of that terrible feeling which possessed him on the eve of a grave surgical operation, a feeling from which no conscientious surgeon in the beginning of his career is spared. After superhuman efforts he found he was unable to overcome it. He said that his sleep

the night before a serious operation was a continuous dream, awful in character; that he chilled all night, and when the morning dawned he felt almost physically unable to meet the work before him. He thought that, before he became a nervous wreck, he had better leave surgery to those differently constituted. We all sympathize with these young physicians. When we reflect that the active life of a surgeon is somewhere in the neighborhood of twenty-five years, that it requires from five to ten years of hard work and close application with many sacrifices of personal liberties and social enjoyments to become educated and fitted for this serious work, it is only wise when the young man feels that he is not constituted for the work to divert his ambition into some other channel.

My heart goes out to the country doctor who is at times called upon to act the part of a surgeon. The work of the surgeon in the country is done under all kinds of disadvantages. Naturally, cases occur calling for the skill of a surgeon in which the afflicted patient cannot be taken to a hospital, where there is no operating room at hand and where the best possible conditions must be created in the house where the operation is to be done. It is fortunate for the patient that usually a country doctor can be found with the accredited ability and knowledge of asepsis to cope with an emergency and save the patient's life. Under such conditions the country doctor, usually a splendid physician, will appreciate his limitations and refrain from doing too much surgery on his patient.

The usefulness of hospitals in the smaller cities and towns, where operations could be undertaken on patients too sick to be removed to a hospital in a large city, has always appealed to me. It would be a feasible plan to have a hospital with modern equipment in every town of about 5,000 inhabitants situated one hundred or more miles distant from a city. The essential feature of such a hospital should be a physician whose surgical ability has given him a recognized standing as a surgeon, not only in the town but in the surrounding country. He should be respected as such by his colleagues, and every courtesy and assistance given him by them. It should be expected that a physician so honored would appreciate the limitations of his surgical ability in his work and leave the more serious operations in the hands of men with greater skill and larger experience. Surgery is not an art free from errors either in diagnosis or in the performance of operations based on the diagnosis. It is an awful feeling, not to say anything of the disappointment and chagrin that the heart will harbor, to open an abdomen and find your shortcomings in the surgical art unable to cope with the pathologic conditions. It is distressing enough when the con-

ditions are so unfortunate that surgical relief in the hands of a very competent man cannot be given. The consolation for the country surgeon in the face of this reasoning is, that if he confines himself to emergency work and those operations the character of which he knows will not jeopardize the patient's life through his inexperience, he will have no cause to reproach himself nor suffer the pangs of a smitten conscience. It seems so much to be a great surgeon, I doubt even if the physician can fully appreciate the enormity of the surgeon's work.

To a surgeon alone is known the trying tension induced by the keen concentration of his mind while at work, and to him alone is known the sense of utter exhaustion after his work is done.

Before concluding I wish to align a plea with the surgeon and his work. I may be pardoned for including it in his work. The subject is of such vast importance and the neglect with which it has been treated caused his work to be so very unsatisfactory, that through his instructions to the family physician, who is usually first consulted and who has the opportunity to arrange for proper diagnosis and treatment in the early cases, bright hopes may be entertained for the future in saving a greater number of lives of women suffering from cancer of the uterus than has been his lot heretofore.

It can be said that in the surgeon's work all elements of chance have been eliminated, human skill and knowledge await to do, and the only doubtful point remaining is the one that can be settled by none save a higher power, and if, through this higher power, the hand of the surgeon should be stayed from the further continuation and enlargement of his work, the invaluable good contributed in the past for the relief of suffering mankind would mirror a prayer for the surgeon and his work.

Ever since the impulses of the surgical art took possession of me, and clouds with and without a silver lining have been hanging over me, I have grown more and more curious as to how it happened that surgeons become surgeons. To appease my curiosity I addressed a letter of inquiry to a number of surgeons who have accomplished so much in our cherished art and who are all well known to us. In doing so I felt the delicacy of so pertinent a question, and I assure you it was a great pleasure to receive and read the many replies. I feel very grateful for these responses so personal in their nature.

These are very interesting little histories of life's beginning of some of the great men in our profession, and I treasure them very highly.

Halberstadt, den 11. April 1910.

Sehr geehrter Herr College!

Ich wurde Arzt, weil mir eine an einem jüngeren Bruder vorgenommene Tracheotomie — der ich als 16jähriger Schüler zusah — sehr imponierte. Der Chirurgie speziell trieb mich ein Zufall in die Arme: es war gerade eine Assistentenstelle an einer chirurgischen Privatklinik in Gotha bei E. Mensel frei. Ich meldete mich und wurde angestellt. — Uebrigens habe ich als Assistent nie eine Gallensteinoperation gesehen; ich bin auf diesem Gebiete völlig Autodidakt.

Collegiaten Gruß

Sehr.

HALBERSTADT, April 11, 1910.

VERY HONORED COLLEAGUE: I became a physician because of a tracheotomy on a younger brother (which I, as a 16-year-old scholar, watched), which greatly impressed me. It was through an accident that I embraced surgery. There was an opening as assistant to E. Mensel at his private clinic in Gotha. I applied and was appointed to the position. As an assistant I had never witnessed a gall-stone operation. I am wholly self-taught in this branch. Collegiate greetings,

KEHR.

Verehrtester Herr College!

Sehr gerne beantworte ich Ihre Frage. In erster Linie war es ein rein äußeres Moment, das mich der Chirurgie zuführte, nämlich meine Thätigkeit im deutsch-französischen Kriege und daran anschließend meine Ernennung zum Assistenten an der chirurgischen Klinik der Universität Würzburg. Aber schon nach kurzer Zeit war es mir klar, daß ich der Chirurgie treu bleiben würde. Es fesselte mich vor allem der hohe Reiz der Thätigkeit, deren greifbare Erfolge so wie das große Arbeitsfeld, das sich ja inzwischen so gewaltig erweitert hat. Nicht unwesentlich beeinflusst wurde ich aber auch durch die Persönlichkeit meines Lehrers Linhart, der, ein glänzender Operateur, mich nach jeder Richtung bereitwillig förderte.

Mit kollegialem Gruß und besonderer Hochachtung bin ich Ihr ganz ergebener

Dr. Riedinger.

MOST HONORED COLLEAGUE: I take pleasure in answering your question. In the first place it was rather a peculiar incident that led me into surgery, namely, the part I took in the Franco-German War. This experience was followed by my appointment as an assistant at the surgical clinic at the University of Würzburg. In a short time it was made very clear to me that I was to remain in surgery. The great charm of this line of work captivated me; above all I was fascinated by the great good from its visible success, as well as the large field of labor that has since then been so enormously extended.

I was not kept back unnecessarily, but was influenced in every way, willingly, through the personality of my teacher, Linhart, who was a brilliant operator.

With collegiate greetings and high esteem, I am

Devotedly,

DR. RIEDINGER.

Graz, 16. April 1910.

Geehrter Herr College!

Ihre Anfrage, warum ich Chirurg geworden bin, kann ich wohl damit beantworten, daß der tiefste Beweggrund, die Begeisterung für die Chirurgie war, die ich schon als Student empfand, als ich den Vorlesungen und Operationen Billroth's beizuwohnte, welche durch den persönlichen Verkehr mit Billroth's Assistenten noch gesteigert wurde. So kam ich als Operationszögling an Billroth's Klinik. Entschien

den d. dafür, daß ich Fach-Chirurg wurde, war schließlich der Umstand, daß Billroth, obwohl ich erst ein Jahr bei ihm Operationszögling war, mich nach dem Abgange Mikulicz's aus seiner Klinik zum Assistenten — als dessen Nachfolger — erwählte.

In vorzüglicher Hochachtung Ihr ergebener

B. von Hacker,
Direktor der chir. Univ.-Klinik.

GRAZ, April 16, 1910.

HONORED COLLEAGUE: Your question, "Why I became a surgeon?" I can well answer, that the greatest reason was the inspiration which I felt, even as a student, when I was present at the lectures and operations of Dr. Billroth. This inspiration was still more increased by personal connection with Billroth's assistant, so I came as a student to operations at Billroth's clinic; deciding in its (surgery's) favor I became a specialist, a surgeon. It was this decision that caused Billroth (provided I was first a student in the operating room for a year) to choose me as his assistant to succeed Mikulicz, after the latter's departure from the clinic.

In highest esteem, your devoted,

B. VON HACKER,
Director of the Surg. Univ.-Clinic.

Cadenabbia (Italien), 11. April 1910.

Sehr geehrter Herr College!

Ihre werthe Anfrage kann ich, wie ich glaube, sehr kurz beantworten; denn schon als Gymnasialschüler mit 14 Jahren war mein sehnlicher Wunsch, einmal Arzt, und wo immer möglich ein Chirurg zu werden, so ausgesprochen, daß ich eigentlich nie begreifen konnte, daß nicht auch meine Mitschüler alle diesen Wunsch haben sollten. Dann kamen die Studenten- und Assistenten-Jahre; mein Entschluß ward je länger je fester. Ich wurde, um meinen Lebenszweck zu erreichen, erst anatomischer Assistent bei Prof. Dr. Hermann von Meier in Zürich, dann chirurgischer Assistent bei Prof. Dr. Edmund Rose in Zürich und endlich Assistent bei Bernhard von Langenbeck in Berlin, wo ich 7 Jahre blieb. v. Langenbeck's Assistent zu werden, betrachtete ich und betrachte ich noch als das größte Glück, das mir zu Theil werden konnte. Dieser edle, vornehme und humane Chirurg wurde das Vorbild, dem ich nachzustreben mich bemühte, er war mir Lehrer, Freund und Vater.

Mit hochachtungsvollem Grusse Ihr ergener

R. W. Krönlein aus Zürich.

CADENABBIA, ITALY, April 11, 1910.

MOST HONORED COLLEAGUE: Your courteous inquiry, I think, I can answer in a few words. As a scholar at college, at the age of 14, it was my most ardent desire to become a physician, and if possible a surgeon. This desire was so pronounced that I could never comprehend why all my classmates did not have the same wish. Then there were the student and assistant years, and the longer it took the more determined I became to be a physician.

First, I was anatomy assistant with Prof. Dr. Herman von Meyer in Zurich, then surgical assistant with Prof. Dr. Edmund Rose in Zurich, finally assistant with Bernhard von Langenbeck in Berlin, where I remained for seven years. To become von Langenbeck's assistant I considered and still consider the greatest fortune that could ever be my lot. This noble distinguished and humane surgeon became the highest type of teacher, friend and father to me.

With collegiate greetings, devotedly yours,

R. W. KRÖNLEIN, Zurich.

Wien, 9. April 1910.

Lieber Doktor Reder!

Zufall war es, reiner Zufall! Da ich vollkommen unbemittelt war, war es meine Absicht, nach gehöriger Ausbildung in die Praxis zu gehen. Da traf es sich, daß sich mir die Gelegenheit bot, Assistent bei Schauta in Prag zu werden. Von da an blieb ich mit der Gynäkologie verknüpft.

Bevor ich zur Chirurgie übergegangen war, war ich Internist und noch früher Experimental-Pathologe. Ich glaube, wenn sich mir da Gelegenheit geboten hätte Assistent bei einem großen Meister zu werden, wäre ich dort hängen geblieben.

Weiteres möchte ich nicht anzugeben.

Mit colleg. Grüßen Ihr sehr ergebener

Wertheim.

VIENNA, April 9, 1910.

DEAR DR. REDER: It was chance, mere chance. Since I was entirely without means it was my intention, after having received a thorough training, to establish a practice. Then it so happened that the opportunity arose for me to become assistant to Schauta in Prague; from this time on I have remained closely connected with gynecology.

Before I took up surgery I was an internist, but still earlier had devoted my time to experimental pathology. I believe if the opportunity had presented itself to become assistant to a great master, I probably should have clung to experimental pathology.

That is as much as I have to say. With collegiate greetings,

Your most humble,

WERTHEIM.

Berlin, 20. April 1910.

Lieber Herr College!

In die Medizin bin ich rein zufällig gekommen, weil der alte Langenbeck Decan war und mir sein Gesicht von den 4 Decanen am besten gefiel. Als Student wurde ich bei ihm Pensionär und damit war meine Absicht, Chirurg zu werden, beseitigt.

Weiteres möchte ich nicht anzugeben.

Mit besten Grüßen Ihr ergebener College

Fedor Krause.

BERLIN, April 20, 1910.

DEAR COLLEAGUE: I came purely accidentally into medicine, because Langenbeck was Dean, I liked him best of the four deans and as a student I boarded at his home; therefore, my aim to become a surgeon was sealed.

Best greetings, your humble colleague,

FEDOR KRAUSE.

Stuttgart.

Sehr geehrter Herr College!

Da mir die Chirurgie auf einer breiten experimentellen Basis zu stehen schien, da ich ferner der Meinung war, daß durch den Einblick in die pathologischen Lehren ihre Aufgabe klar vorgezeichnet schien, da ich Freude an praktischer Chirurgie hatte und mir die Persönlichkeit meines Lehrer Czerny in Heidelberg sehr sympathisch war wurde ich Chirurg.

Ihr ergebener

Dr. Steinthal.

STUTTGART.

VERY HONORED COLLEAGUE: Since surgery seemed to me to stand on a broad experimental basis, and since I was furthermore of the opinion that through an insight into pathological training, its task seemed clearly indicated, and again I enjoyed the practice of surgery and the added friendship of my teacher, Czerny, in Heidelberg, who was very sympathetic, I became a surgeon.

Your humble,

DR. STEINTHAL.

10. April 1910.

Dr. Francis Reder, St. Louis, Mo.

Sehr geehrter Herr!

Auf Ihre Anfrage erwidere ich Ihnen, die Neigung, Arzt und speciell Chirurg zu werden, bestand bei mir seit früher Jugend. Ich habe schon als Schüler chirurgische Bücher gelesen, welche ich in der Bibliothek meines Vaters (Arzt) fand, so Bardeleben's (Widal's) Chirurgie und Spencer Well's Schriften über Ovari-otomie. So habe ich mich als Student schon besonders für Chirurgie interessiert und wurde 1874 Assistent an der chir. Univ. Klinik in Straßburg. Wen die Chirurgie einmal gepackt hat, den läßt sie auch nicht wieder los.

Mit Hochachtung

Dr. W. Körte.

April 10, 1910.

VERY HONORED COLLEAGUE: To your question, "Why I became a surgeon?" I answer that the inclination dwelt in me from early youth. I had as a scholar, read books on surgery, which I found in the library of my father, who was a physician, so I read Widal's Surgery and Spencer Well's writings on ovariectomy. Having thus already interested myself in surgery as a student, I became, in 1874, assistant at the surgical clinic of the University in Strassburg.

Whenever surgery once gets hold of that one it never lets go.

With highest esteem,

DR. W. KÖRTE.

Breslau, 1. Mai 1910.

Hochgeehrter Herr College!

Von einer Krankenreise zurückgekehrt, finde ich Ihr geehrtes Schreiben vor.

Ich bin auf eigenartige Weise Chirurg geworden. Schon von meinem 6. Lebensjahre ab interessierte ich mich aufs Lebhafteste für Naturwissenschaften, besonders für Zoologie, und nahm als Gymnasiast schon vielfach anatomische Präparierübungen an gestorbenen Tieren vor; bei dieser Gelegenheit zog ich mir als 15jähriger Schüler bereits eine schwere Infektion zu.

Nach bestandenen Maturitätseramen wurde ich meinen Neigungen entsprechend Zoologe. Im 5. zoologischen Studiensemester erhielt ich bei einem Pistolenduell eine Schußverletzung der Abdomen und wurde durch Operation gerettet, was damals — im Jahre 1890 — noch recht selten war. Diese Heilung imponierte mir derart, daß ich sofort unparteielt und, mit der ausgesprochenen Absicht, Chirurg zu werden, Medizin studierte. Dieser Absicht bin ich tren geblieben.

Mit bester Empfehlung Ihr ergebener

Hermann Küttner,

Ordentlicher Professor der Chirurgie, Direktor der kgl. chirurgischen Universitätsklinik zu Breslau.

BRESLAU, May 1, 1910.

HIGHLY HONORED COLLEAGUE: Having returned from a vacation, I find your letter.

It was in a peculiar manner that I became a surgeon. As early as six years of age I was greatly interested in the natural sciences, especially in zoology, and while at school I often made experiments on the anatomy of diseased animals. As a scholar of 15, on one of these occasions, I contracted a severe infection. Having succeeded in my final examinations, I yielded to my inclinations to become a zoologist.

During my fifth semester in zoology, in a pistol duel I was wounded in the abdomen and was saved by an operation, which was at the time (1890) a rare occurrence. This made such an impression on me

that I changed my mind and studied medicine, with the determination to become a surgeon. I remained true to this aim.

With my compliments your most honored,

HERMANN KÜTTNER.

Professor in Ordinary of Surgery and Director of the Surgical University Clinic in Breslau.

Heidelberg, den 9. April 1910.

Mein lieber Herr Dr. Reder!

Ich bin Chirurg geworden durch und wegen Th. Billroth. Ich wollte Naturforscher werden und Alex. v. Humboldt schwebte mir als Ideal vor. In den letzten Semestern meiner Studien fesselte mich die Augenheilkunde. Ich wurde Privatassistent bei T. v. Arlt u. Otto Becker. Dann kam ich nach meiner Promotion 1866 als Assistent zu Oppolzer und zwar durch Prof. Stricker, in dessen Institut ich arbeitete. Als Billroth 1867 nach Wien kam, fesselte mich seine Art zu arbeiten und seine künstlerische Persönlichkeit. Durch einen Vortrag, den ich im physiologischen Verein hielt, wurde er auf mich aufmerksam und forderte mich auf, sein Assistent zu werden. Oftern 1868 trat ich bei ihm ein und blieb bis Dezember 1871, wo ich als ordentlicher Professor nach Freiburg i. B. berufen wurde. 1877 kam ich nach Heidelberg, wo ich bis 1906 die chirurgische Klinik leitete. Seitdem bin ich Director des vor mir gegründeten Instituts für Krebsforschung.

Hochachtungsvoll

Dr. Ringen z Czerny.

HEIDELBERG, April 9, 1910.

MY DEAR DR. REDER: I became a surgeon through the instrumentality of Th. Billroth. I intended to be a natural philosopher. Alexander von Humboldt being my ideal. In the last semester of my studies I was attracted to ophthalmology and I became private assistant to T. von Arlt and Otto Becker. After my promotion, in 1866, I became assistant to Oppolzer through Professor Strickler, in whose institute I worked.

When Billroth came to Vienna, in 1867, I was charmed with his method and his pleasing personality. In delivering a lecture, which I gave before the physiological society, his attention was drawn to me and he requested me to become his assistant. I commenced with him in the spring of 1868 and remained until December, 1871, when I was called as Professor in Ordinary in Freiburg.

In 1877 I went to Heidelberg, where until 1906 I was at the head of the surgical clinic. Ever since then I have been the director of the institute, founded by me, for cancer examinations.

With great respect,

CZERNY.

Berlin, den 19. April 1910.

Ich bin mehr durch einen Zufall als durch meine Absicht Chirurg geworden. Es kam dies folgender Weise. Ich war nach dem Staatseramen zunächst zwei Jahre Neurolog, denn vier Jahre innerer Mediziner, wofür ich von je her, schon als älterer Student eine große Vorliebe hatte. Besonders beschäftigte ich mich mit experimenteller Pathologie und operierte so viel an Tieren. Ich hatte niemals daran gedacht Chirurg zu werden, war damit beschäftigt mich für innere Medizin in Straßburg i. E. zu habilitieren.

Eines Tages fragte mich mein Chef, Prof. Nann, ob ich nicht Chirurg werden wolle. Ich erwiderte nein, ich dachte gar nicht daran, ich fühle mich als innerer Mediziner sehr wohl.

Er entwickelte mir darauf, was er mit mir vor hätte. Er hatte bei den Tieroperationen chirurgisches Geschick

an mit gesehen. Er war gerade dabei mit Mikulicz die „Grenzgebiete der Medizin und Chirurgie“ herauszugeben. Da hatten sie beschlossen einen ausgebildeten inneren Mediziner zum Chirurgen zu machen, und das sollte ich sein. Ich überlegte mir die Sache und sagte schließlich zu.

Ich mußte auf der Mikulicz'schen Klinik als jüngster Volontär eintreten, obwohl ich in Straßburg bereits erster Assistent und Privatdozent gewesen war. Die Chirurgie sagte mir aber sehr gut zu und blieb ich ihr daher treu.

R a u j c h.

BERLIN, April 19, 1910.

DEAR DR. REDER: It was more by accident than by intention that I became a surgeon, this being brought about in the following manner, after the state examinations: In the first place I was neurologist for about two years, then for four years internist; even as an elder student I preferred this branch of study. I busied myself especially with experimental pathology and operated on animals. I never thought of ever becoming a surgeon and was preparing myself for internal medicine in Strassberg. My chief, Professor Naunyn, asked me one day if I did not care to become a surgeon; I said, "No, I was not thinking of that." I felt perfectly satisfied as an internist. He explained to me what his intentions were concerning me; he had noticed my surgical skill in the animal operations; he was just getting ready to publish a paper with Mikulicz on the "Borderline between Medicine and Surgery." They had decided to make a surgeon out of a physician well versed in internal medicine, and I should be the man. I considered the matter and finally consented. I had to enter Mikulicz's clinic as the youngest volunteer, although I had already been first assistant and private instructor in Strassberg. I found that surgery suited me very well, and I remained true to it.

KAUSCH.

Venise, le 14 Avril 1910.

Cher Collègue:

Je reçois votre aimable invitation, à laquelle je dois répondre d'abord que j'ai voulu être médecin par disposition acquise je ne sais d'où. Aussi loin que je me souviens dans mon enfance, j'avais ce désir, sans avoir eu cependant de médecin dans ma famille, mon père étant maître d'école en campagne.

Lors de mes études lycéales, mon professeur aurait voulu me pousser vers les mathématiques, mais je me sentais attiré à la médecine. A l'Université de Turin, je fus élève du *Collegio Carlo Alberto*, fondé par Victor Amédée II pour les étudiants des provinces Sardes qui gagnaient la place au concours. Ces élèves doivent avoir à la fin de chaque année au moins les 9/10 aux examens pour conserver la place; de plus, les étudiants de médecine doivent dès la 2^{me} année d'études (nous en avons 6 en Italie) faire service d'élèves dans une section chirurgicale de l'Hôpital San Giovanni de Turin. Les 3 classifiés premiers sont pendant la dernière année élèves *internes*, c'est à dire qu'ils logent dans l'hôpital même, pour le service de garde et d'urgence, sous la direction d'un chef. Cette institution est la pépinière des chirurgiens du Piémont. En effet, c'est pendant ces années d'études que m'est venu l'amour de la chirurgie. Je le dois certes en grande partie à ce que j'étais tombé dans le service d'un des meilleurs chirurgiens d'Italie, le Prof. Novaro, (maintenant à Gènes), qui avait été, lui aussi, élève du même collège. Je crois aussi que je fus d'autant plus frappé de la puissance et de la beauté de la chirurgie que le Prof. Novaro avait été un des premiers à pratiquer en Italie la Chirurgie moderne et antiseptique, tandis que, à côté, dans d'autres salles, l'on voyait encore les déplorables résultats de la méthode pre-antiseptique, conservée par tel vieux chirurgien.

Je vous avouerai que la chirurgie ne me parut pas facile dès le premier jour, où j'assistai à la première opération (une trépanation de l'apophyse mastoïde) en en subissant aux premiers coups de marteau une telle angoisse que je dus sortir de la salle. Mais le Prof. Novaro m'encouragea, et voulut bien me dire que lui, il avait failli s'évanouir à la première opération, une piqûre d'hydrocèle!

En effet, j'ai pu m'habituer rapidement, à mesure que je comprenais et saisissais la beauté de cet art et la bonté de ses résultats.

Je me permets de vous envoyer par ce même courrier quelques-unes de mes publications, en choisissant, pour la circonstance, celles de nature plus particulièrement professionnelle.

Très dévoué,

Dr. GIORDANO.

in curriculum vitae.

VENICE, April 14, 1910.

DEAR COLLEAGUE: I received your communication and in answer will say: I desired to become a doctor by an inclination acquired, I do not know where, as far back as I remember in my childhood. I had this desire without there ever having been a doctor in the family, my father being a school teacher in the country.

When I was in college my professor would have directed my mind toward the study of mathematics, but I felt myself drawn to medicine.

At the University of Turin, I was a pupil at the college founded by Victor Amédée for students of the province of Sardes, they earning the place by competitive examinations. The pupils at the end of each year must have at least 9 or 10 in the examinations in order to hold their places; furthermore, from the second year (we have six in Italy) of their studies the medical students have to serve in a surgical section of the hospital San Giovanni in Turin. The three pupils making the highest grades during the last year are appointed interns, that is to say, they live in the hospital and serve in emergency cases under the direction of the chief. This institute is the preparatory school for surgeons of Piedmont.

It was during these years of study that the love of surgery came on me, although I certainly owe it, partly, to the fact that I had fallen into the service of one of the best surgeons of Italy, Professor Novaro (now at Genes), who had been a pupil of the same college. I believe that I was also as much struck by the remarkable success of the surgery which Professor Novaro had been one of the first to practice in Italy, that of modern antiseptic surgery; while near by in the other rooms one would still see the deplorable results of the preantiseptic methods practiced by older doctors.

I assure you that surgery did not seem easy to me; the first time I assisted at an operation (it was trephining of the mastoid); I felt at the first blow of the hammer such a shock that I had to leave the room, but the professor encouraged me and told me that he himself was on the point of fainting at his first operation. However, I accustomed myself rapidly to the work as I understood and grasped the beauty of the art and the beneficence of its results.

I am mailing you some of my publications, choosing for the occasion those of a special nature.

Devotedly,

DR. GIORDANO.

NEW YORK CITY, April 1, 1910.

MY DEAR DOCTOR:—I selected surgery as a career for the reason that by nature I have always had an ambition to do things that the vast majority of human beings could not do or did not like to undertake. Surgery requires more courage than I felt it neces-

sary to have to charge a battery or to do dangerous scout duty.

In the solution of a difficult surgical problem, and in the midst of a great operation which requires careful technic, a perfect working, thinking apparatus, a steady hand, and a regular heart, there is a feeling of elevation which takes one for the time being above ordinary mundane things. It is worth it all.

Yours sincerely,

JOHN A. WYETH.

19 Upper Berkeley Street, Portman Square,

W. LONDON, April 11, 1910.

DEAR DOCTOR REDER:—It is very difficult to answer your letter. I can tell you what made me enter the medical profession.

At school I had for science teacher a son of the late Professor Parker, and who afterwards became a professor in Australia. From him I acquired a keen interest in biology. When I entered at St. Bartholomew's I found his teaching of the greatest possible use to me, for he had already taught me to see and think. I naturally, therefore, took to the more objective branch of medicine, surgery, and I have never regretted having done so. I have now been teaching for at least thirty years, and the great hindrance to progress has been want of the local training which my pupils ought to have had whilst at school or the university.

With compliments, believe me,
Sincerely yours,

C. B. LOCKWOOD.

LONDON, April 29, 1910.

DEAR DR. REDER:—My great desire as a boy was to become an astronomer. I soon found that I had no mathematical ability, and with regret abandoned this idea.

I was, as a boy, devoted to the study of natural history and felt that knowledge of this kind would help me if I became a surgeon. I entered Middlesex Hospital, and within a year I began to teach anatomy; I enjoyed the peculiar pleasure of going up for my examinations with my own class. Surgery fascinated me. I refused offers to become an anatomist and a very pressing one to devote my life to pathology. Although I love animals, the most interesting of all animals are living men and women as the surgeon sees them.

Yours sincerely,

JOHN BLAND SUTTON.

OSHKOSH, WIS., April 2, 1910.

MY DEAR DOCTOR REDER:—In reply to yours of the 29th ult., will say that my becoming a surgeon was most natural, as my father and mother are both graduates in medicine; and during my early boyhood father was working with Senn on the bone plates—so that I have always been an enthusiast.

Trusting that this will suit your requirements, and with kind regards, I remain,

Very sincerely yours,

F. GREGORY CONNELL.

PHILADELPHIA, March 31, 1910.

DEAR DOCTOR:—Answering your inquiry I beg to say I always had the desire to be a surgeon even before I became a student in medicine. This desire was materially furthered by my anatomical work in the

dissecting room. My hospital internship was largely along surgical lines.

Very respectfully,

JOHN B. DEEVER.

ROCHESTER, MINN., March 31, 1910.

DEAR DOCTOR:—Brother and I became interested in surgery through general training from our father and observations of his work.

Yours very truly,

C. H. MAYO.

NEW YORK, April 18, 1910.

DEAR DOCTOR REDER:—The only answer I can give to your inquiry of March 29 is that I became a surgeon because of the necessities of my work in connection with obstetrics and diseases of women. With kind regards,

Very truly yours,

W. M. POLK.

Camden Square,

W. LONDON, April 4, 1910.

DEAR SIR:—I was always as a boy fond of the mechanical aspect of anatomy and physiology. At the hospital I was impressed by the amount of direct benefit obtained by surgery and the relative powerlessness of internal medicine. Hence I endeavored to become a surgeon.

Yours very truly,

VICTOR HORSELY.

ROME, May 8, 1910.

MY DEAR DOCTOR REDER:—I am sorry I have received your letter late, so that I don't know if my answer will still be useful to you.

I was prompted to medical studies because my father was a physician, and in the lyceum classes I preferred natural sciences. But I did not know if I should apply myself to medicine or to surgery.

The example and learning of my teacher, Professor Durante, to whom, as soon as I graduated, I was assistant, prompted me to become a surgeon. With best regards, I remain,

Very truly yours,

ROBERTO ALESSANDRI.

86 Harley Street,

LONDON, April 9, 1910.

MY DEAR DOCTOR REDER:—I am very glad to answer your query as far as I am able.

I chose the medical profession in preference to any other, because it seemed to me to be the only one in which a man needed no influences to secure his advancement beyond his own personal attainments. And I chose to become a surgeon rather than a physician from a desire to feel sure that the results produced were the direct effect of the remedies employed, and also because actual manipulation work has always appealed to me. With all kind regards,

Yours truly,

F. F. BURGHARD.

Park House,

WALMER, April 10, 1910.

DEAR DR. REDER:—In the very feeble state of my health, I must ask you to excuse me not complying with your request.

Yours very truly,

LISTER (per L. M. S.)

BOSTON, April 2, 1910.

MY DEAR DOCTOR REDER:—Thanks for your query.

1. A natural fondness for mechanics.
2. A surgeon and medical director in the United States Service during the Civil War.
3. Finally settled after I became the especial—first American—pupil of Mr. Lister—later Sir Joseph and now Lord Lister.

Sincerely,

H. O. MARCY.

139 Harley Street,

W. LONDON, April 27, 1910.

DEAR SIR:—In reply to your letter I have to inform you that I became a surgeon, or rather adopted this branch of our profession, because it interested me the more during my student days, and because I thought that one was able to do more by its means for the patient than by any other.

Yours sincerely,

T. P. LEGG.

March 29, 1910.

DEAR DOCTOR REDER:—

1. A natural taste for surgery.
2. Opportunity.

Yours truly,

CHARLES P. NOBLE.

March 29, 1910.

DEAR DOCTOR:—I chose medicine rather than law or clergy or business because of my admiration for my father's family physician, a man of nobility and impressive type.

I chose, after my college and hospital course, to become a surgeon because of my admiration for Dr. Robt. F. Weir, whose wonderful work and learning inspired me.

Thus, as often it must be, we follow noble examples with whom circumstances brings us in contact.

Sincerely,

ROBERT ABBE.

CHICAGO, April 1, 1910.

DEAR DOCTOR:—In reply to your letter, I would say that I had a desire to be a doctor from the time I was five years of age. My father had a serious accident. He was attended by a surgeon named Dr. Graham. I watched him do his work and I talked of being a doctor from that time on, and prepared for it accordingly. Trusting this will suffice for your purposes, I am,

Very truly yours,

W. B. MURPHY.

BUFFALO, March 31, 1910.

MY DEAR DOCTOR:—Your circular letter inquiring the reasons why a number of us became surgeons in the first place is received.

It would be hard to give a description of all the reasons which influenced me in my early days. I was brought up in my boyhood in the family of a physician, and later developed a great taste for applied mechanics in any form, having my own shop and being accustomed to the use of tools, both for wood and metal working. Later, after studying medicine, I began teaching anatomy. This was in 1877 in Chicago. I think it was a combination of mechanical taste, opportunities for anatomical study, and the outlook where I could plainly discern that surgery was going ahead faster than medicine, which directed me toward the specialty to which I have since paid most of my attention. Behind it all was a taste and love for the

work, feeling that there was more certainty of result, and hence greater satisfaction to the surgeon himself.

This would appear to be a brief analysis of the causes which influenced my own course. Trusting that this will be satisfactory to you,

Very truly yours,

R. PARK.

CHICAGO, April 20, 1910.

DEAR DOCTOR REDER:—Thank you very much for your request. The manner in which I happened to become a surgeon is as follows: I had prepared myself for laboratory teaching, having worked three years in the laboratories of the University of Wisconsin before entering my studies in a medical school, but upon entering my medical studies it became clear to me that laboratory teaching in medical schools in this country was still in so primitive a condition that it would be necessary to waste many years before facilities would be forthcoming, while the surgical field was open for activity and the conditions were ripe for much advancement. Consequently I abandoned the former field and took up the latter, especially as I had an opportunity to become the assistant of Dr. Moses Gunn for one year, and later chief assistant to Dr. Charles T. Parkes for three years, and then for Dr. Nicholas Senn for four years.

Very sincerely,

A. J. OCHSNER.

PHILADELPHIA, March 31, 1910.

MY DEAR DOCTOR REDER:—In reply to the question in your letter of the 29th, I beg to say that even from childhood I had always a very great interest in medical matters, especially anatomy, physiology, and surgery, together with a warm interest in scientific matters in general. This led me to go to Brown University, where Dr. Wayland in 1850 had introduced the elective system and had given equal academic rank to science and the humanities. To Dr. Wayland and Brown University is due the credit for both of these innovations, later taken up and developed so admirably by President Eliot, but initiated by President Wayland a score of years earlier.

I naturally, therefore, determined upon medicine, and more particularly surgery, as a career before I graduated at Brown in 1859. I then spent a resident graduate year at the university studying chemistry and other branches of science preparatory to medicine, for which, in those early days, no university had any really worthy equipment. This year also gave me what I have never ceased to be grateful for, viz., that I was able to pursue studies in English literature and composition along with my scientific work.

Yours very truly,

W. W. KEEN.

BALTIMORE, March 31, 1910.

MY DEAR DOCTOR REDER:—Your letter received. In reply I would say that I cannot remember the time when I had any other idea than to study medicine and do surgical work. I do not lay any claim to being one of those "natural born surgeons," but I cannot remember that I ever had any other idea. I do not know of anything special that suggested this, as my father was a minister and there were no doctors in the immediate family except an uncle, a brother of my father, for whom I was named; possibly this may have been the original suggestion but, if so, it was beyond my earliest recollection.

The subject you have chosen for your paper is a very interesting one, and I would thank you if you would send me a reprint when it is published.

Sincerely yours,

J. M. T. FINNEY.

March 31, 1910.

DEAR DOCTOR REDER:—I went into medicine because of my interest in natural history, probably through interest in the study of anatomy. I took up gynecology by natural predilection and because in the eighties it offered a large field for original work and investigation.

Sincerely yours,

H. A. KELLEY.

EDINBURGH, April 9, 1910.

MY DEAR DOCTOR:—Your question, why I became a surgeon is difficult to answer. I never was asked the question before. I have hunted back in the past, and my first recollection is as a schoolboy, when asked what I would be, I said "a surgeon." I was told by an old gentleman it was poor work. Simply a handicraft—not worthy of a man—but still it stuck to me, although I never knew of a relative who had been a surgeon. I have since discovered that long ago a young man called Chiene hived off from the old home, came to Edinburgh, changed his name to Cheyne and became a surgeon in Leith. His picture is in the College of Surgeons in Edinburgh. From him rose the famous Dr. Cheyne of Bath and Dr. Cheyne of Dublin; so perhaps my views of life were hereditary—an instinct. To come to the time I went to college, Professor Goodier gave me a helping hand (he came from Fife, so did my ancestors). He sent me to Professor Syme, also a Fife man, and Professor Syme introduced me to Professor Lister, his son-in-law, and that is all I know. This is a rigmareole account of my genesis, and it comes to this, that man is made out of two distinct factors: 1. Something he has gotten from the past; 2. His environment. I have always held that the past is the more important.

Yours truly,

JOHN CHIENE.

BAHAMAS, April 6, 1910.

DEAR DOCTOR:—My first surgical inclination was given me by Dr. Joe R. Wood, one of our earlier distinguished New York surgeons, by his dexterous forceps avulsion of my ingrowing nail. It was so quickly done that my admiration for his deftness overcame the recollection of my pain. I was then about sixteen years old. A year later the same surgeon replaced with what seemed to me almost magically the displacement of a Pott's fracture which had happened to my father's leg. These two exhibits caused me to yearn to be a surgeon, and my parents agreeing, I was placed in the office of Dr. Gurdon Buck of the New York Hospital and there started on my career.

Yours most truly,

R. S. WEIR.

(Temporarily at Napan.)

LONDON, April 11, 1910.

DEAR SIR:—My father was a surgeon and held the post of surgeon to a large infirmary where he did much good work. He was a great friend of Sir Astley Cooper, who was constantly at my father's house, with other leading men.

I feel sure that it was owing to the association of these men and the high character my father had won that I entered as a pupil at Gunz's Hospital in 1846,

subsequently becoming surgeon to the hospital and retired in 1888. I am now 80 years of age and next month will be, on May 2, 81.

Yours sincerely,

THOMAS BRYANT,
Past President of the Royal College of
Surgeons of England.

Ladine Court,

EWHRUST HAWTHURST, April 19, 1910.

MY DEAR SIR:—I retired some five years ago and your letter has been sent on to me. I wish I could give you more interesting information.

If I remember rightly, I inclined to surgery owing to the early and excellent grounding in anatomy which I received from Professor Robertson at Oxford, 1866-1869, and the detailed dissections required in the natural science school of that day, both in the vertebrate and invertebrate kingdom.

I am very faithfully,

W. H. A. JACOBSON.

PHILADELPHIA, April 6, 1910.

MY DEAR DOCTOR REDER:—In answer to your letter of March 29, I had been to school at Concord, N. H., and had finished and was spending my summer at my home, Danville, Pa. My father, an attorney-at-law, had made lawyers of two of his sons and intended me for one. I rebelled, saying there were enough lawyers in the family, and at any rate, as he insisted on my going through college as a preliminary, I declined. I had had enough of Greek and Latin and the higher mathematics. I wanted to go to work. I was asked what I wanted to do. I replied, I had no idea. What should he advise? He said: "I can help you in law—I know nothing else, and you had better look around among your friends and get their advice. You may take six months to it and at the end of that time I expect you to come to me with your decision and start in."

The subject was never referred to between us again, but I knew my good old dad quite well enough to know that when the six months were up I was expected in his office with my decision. I had as soon jumped in fire as to not be there on time. Five months passed and no decision and no prospect. Fourth of July approached. A friend and myself had been amusing ourselves from time to time shooting rats in our back yard on Sundays. A narrow-minded old Methodist minister complained to our fathers and got us in trouble. We grasped the opportunity of the Fourth to even up scores with the preacher and 4 o'clock in the morning saw us under his windows with a small cannon. The first discharge was a great success; it aroused the whole neighborhood. While loading up for the second one, the cannon exploded into a hundred pieces in our hands. The doctor, an old army surgeon, subsequently amputated what was left of the first finger and thumb of my left hand and patched me up generally, hands, arms and legs. These powder burns were three weeks to a month healing, and I have never seen anyone suffer from similar wounds for so long a time since. After each dressing for three weeks I sat holding my wrist, grunting with pain, and finally came to the conclusion I would like to be in the surgeon's place and have him in mine; he seemed so cool and complacent about it.

One week later I walked into my father's office and told him I wished to study medicine. It was the first thought I had ever had in that direction. He told me to talk it over with my doctor and ask him to take me as a student. I did so. My answer was: "If you were my son I should prefer to see you dead than

study medicine—think it over to-night and if to-morrow you are of the same mind, come to see me again.” The next day saw me installed in the office with a Gray’s anatomy before me, and I am now well convinced his advice was a grave mistake. The old gentleman was an excellent, hard-headed surgeon, whose skill had not been appreciated as it deserved, and he was a disappointed man with his success in life. I learned, in the year I read in his office and assisted him, many things that have stood me in good stead in many a tight place (amongst others never to lose my head), and have ever since had a wholesome respect for the county surgeon. Send me a copy of your paper. I would like to see what influenced others.

Very truly yours,

J. M. BALDY.

NEW YORK, April 1, 1910.

DEAR DOCTOR REDER:—I received your question of March 29. I had planned to make the study of natural history my life work. While taking a course in biology at Cornell University I had occasion to do a great deal of work in comparative anatomy. Incidentally worked with animals, and being somewhat inventive by nature, I happened to devise certain procedures applicable in practical surgery. My first laparotomy, however, done at this time, for spaying the spaniel of a friend, resulted in the dog having at the next litter two more pups than she had ever borne in any previous litter. During my course in medicine at Columbia my bent leaned toward neurology, because of work done in comparative anatomy previously, and I would probably have become a neurologist if my examination for position on the house staff at Bellevue Hospital had been good enough. Another man passed a better examination than I did, and having first choice, he took the medical division. This left me with second choice—surgical division. In the midst of opportunity for surgical study at Bellevue, I naturally obtained a direction which definitely determined my course for subsequent life work.

Yours truly,

ROBERT T. MORRIS.

THE SURGICAL TREATMENT OF UTERINE MYOMATA *

WILLIAM J. FRICK, M.D.

KANSAS CITY, MO.

Uterine myoma is one of those pathological conditions which demands the exercise of nice surgical judgment. When a case presents itself to the conservative surgeon, careful deliberation upon the various features of the individual case is absolutely necessary. By no means can any method of treatment be indiscriminately applied to all cases. However, it is generally conceded that some form of operative interference is always indicated if the patient’s best interests are to be conserved.

A great deal has been said, not without reason, against operating upon “symptomless fibroids”; but it is undoubtedly true that the gynecologist sees few, if any, such cases. The patients always have symptoms referable to the genital tract or

they would not be appealing to the gynecologist for relief. And if myoma is found to be present it is impossible to eliminate it as a causal factor of the complaint. The surgery of uterine myoma offers two methods of treatment—hysterectomy and myomectomy.

In recent years great strides have been made toward the perfection of the technic of hysterectomy; and the danger previously attendant on this operation has been materially lessened. The enucleation of myomata is being done in rapidly increasing numbers of cases with excellent results. Being, in its intent, a strikingly conservative procedure, its advisability should always be considered before resort is had to the more radical operation, hysterectomy.

In the choice between these two operative methods lies the surgeon’s problem; and it should never be considered an easy one. In this paper we desire impartially to review the advantages and disadvantages of both operations; and then to append an abbreviated discussion of a few cases in my series which illustrate the salient features of the value of myomectomy.

The undeniably great advantages offered by hysterectomy are the elimination of the possibility of (1) recurrence of the myoma, (2) malignant degeneration of the tumor itself, and (3) development of carcinomatous degeneration in the mucosa of the uterus or cervix, the etiology of which may in some way be related to the presence of the benign growth.

Gross examination of myomatous uteri reveals the fact that this type of tumor often is multiple. The uterine musculature is at times more or less thickly studded with the neoplasms varying greatly in size, many of them being so small that they might easily be overlooked during an enucleation operation. Granted that all the larger tumors are removed, it is yet likely that, in time, the smaller ones will develop and require a second operation.

Myomata are subject to several types of degeneration. Hyaline, myxomatous, calcareous, cystic, necrotic and sarcomatous degenerations have frequently been noted. The first few types hold no special menace to the patient. Cystic and necrotic myomata have been known to rupture into the peritoneal cavity with the sequence of fatal peritonitis. Sarcomatous degeneration of this type of tumor formerly was thought to be of rare occurrence. More recently, however, the opinion has changed and the process now is considered a not uncommon one. Cullen has found this condition in many myomatous uteri which upon previous less thorough examination had been considered benign. Sometimes the process is only apparent upon microscopical examination, the gross appearance revealing none of the characteristics of sarcoma.

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May 19, 1910.

Carcinoma and myoma are the commonest neoplasms occurring in the uterus; and they represent a large percentage of the surgical gynecologic cases. It is therefore not surprising that the two should occur simultaneously in some cases. Just what, if any, is the etiologic relationship between them has not yet been definitely determined. However, to the clinician their occurrence together is of great importance. If carcinoma can be demonstrated, or if it is even only suspected, myomectomy is not to be considered; early hysterectomy is the only permissible procedure. Cases of carcinoma have presented themselves for operation after a myomectomy has been done; and it has been suggested that the malignant neoplasm was caused by the previous operation. In my opinion this is not true. It is much more likely that it existed at the time of operation but in so early a stage that it was not recognized. That the trauma may have stimulated the growth is not at all unlikely.

The disadvantages entailed by the removal of the uterus are of importance. (1) Sterility is a certain consequence. (2) The bladder and rectum lose a natural support, and prolapse of these structures may occur. (3) If panhysterectomy is done, an artificial menopause is induced.

The more recent operation, myomectomy, is decidedly conservative. Perhaps its chief recommendation is the preservation of the reproductive function. So that in women who are yet within the normal child-bearing age it should be done unless some condition exists which positively indicates removal of the uterus. This consideration is so important that, in view of the good results achieved with myomectomy, it is surprising that the operation is not more frequently performed.

That in leaving the uterus a natural support to the bladder and rectum is conserved is not to be disputed; but on the other hand, it is doubtful that the uterus is an essential support to these structures. It has been demonstrated that the various uterine ligaments act as guys rather than as supports to the uterus; and that the more important supportive factor is atmospheric pressure. This being true of the uterus, is also though perhaps to a less degree, true of the bladder and rectum. So that it is not likely that removal of the uterus is in itself responsible for cystocele or rectocele following a hysterectomy.

That myomectomy circumvents the precipitation of the menopause is urged as an argument in favor of the operation. But it is not important; for hysterectomy can be done without removing the ovaries. Moreover, I do not believe that a menopause artificially induced presents any more serious or more distressing phases than does a naturally induced one.

Many suggested disadvantages are attendant upon myomectomy. (1) Recurrence is extremely

likely for the reason that usually there are small myomata scattered through the uterine musculature which are not perceived at the time of operation. If these develop and produce symptoms another operation is required. However, as myomata are of reasonably slow growth, the individual would probably have passed the child-bearing period and the object of the previous operation would have been gained; hysterectomy then would be the operation of choice. (2) Degenerative changes in the tumor are always suspicious. When they are present myomectomy is not safe. As previously stated, unrecognized sarcomatous degeneration is a great and frequent danger. Concurrent carcinoma in an early stage may easily be overlooked especially in cases of subserous and interstitial myomata in which the uterine mucosa is not exposed to the operator's view. The frequency of this complication is greater after the fortieth year; and at this age myomectomy should not be decided upon without giving the possibility of this danger its full value.

The injury to the uterine musculature is considered as an objection to myomectomy, yet the reported cases show a fair percentage of pregnancies following the operation. Certainly the injury is no greater than that incident to Cæsarian section. In the subserous and interstitial varieties it is not so great. The uterine muscle withstands well a surprisingly great amount of traumatism, as several of my cases show.

Adhesions of intestine or omentum to the suture lines in the uterine body occasionally occur; and cases of resultant intestinal obstruction are reported. However, this danger can largely be eliminated by a careful operative technic.

The technic which I employ differs in no essential particular from that described by Dr. Howard Kelly. The abdominal cavity is walled off with gauze, the uterus delivered and protected with gauze wrung out of warm salt solution. Incision is made in a generally transverse direction over the most prominent part of the tumor. The myoma is shelled out and the incision closed by a figure of eight hemostatic suture of No. 1 iodized catgut. This effectively controls the oozing. The line of sutures is covered as well as possible with the uterine peritoneum or with a fold of the broad ligament if feasible, by Lembert suture of No. 0 iodized catgut, the knots being buried as well as possible. This second line of sutures is important in reducing the danger of adhesions.

A few cases in my experience will serve to indicate the efficiency of myomectomy in relieving symptoms caused by myomata; and though none of them has been done a sufficiently long time ago to eliminate the possibility of resultant danger, yet I am strongly inclined to believe that the ultimate results will prove that myomectomy was the proper operation.

CASE 1.—Miss S., aged 25. No children. Rather profuse menstrual periods with considerable dysmenorrhea. Myoma discovered at operation for acute appendicitis three months before.

Operation.—Uterus found to be symmetrically enlarged. A fibroid of the submucous variety, size of a billiard ball, enucleated from the fundus. The tumor was solitary. The uterus was closed in the usual manner and the abdomen without drainage.

Post-Operative.—Patient left hospital in ten days with no complications. Twenty-one months later she is having no hemorrhages, no dysmenorrhea and is gaining weight.

CASE 2.—Mrs. R. McA., aged 29. No children. No typical history of myoma. Patient herself noticed a gradual enlargement of the abdomen. Rather profuse menstrual periods.

Operation.—Uterus symmetrically enlarged.

Submucous myoma five inches in diameter enucleated from the fundus. A considerable amount of thinned out uterine tissue resected to close cavity left by myoma. Uterus closed in the usual manner and abdomen without drainage.

Post-Operative.—Patient discharged on the fourteenth day. Recovery uneventful. Thirty-six months later she had gained in weight, is in good health with normal menstrual periods.

CASE 3.—Mrs. D. S., aged 31. No children. Hemorrhages lasting fifteen days at each menstrual period. Had lost considerable weight.

Operation.—Uterus covered with small myomata, of subserous and intramural varieties, easily enucleated. One large submucous myoma, size of grape fruit, enucleated from the fundus. Uterine incisions closed in the usual manner and the abdomen without drainage.

Post-Operative.—Uneventful recovery. Discharged on the fourteenth day. Thirty-six months later has gained in weight and menstrual periods are normal.

CASE 4.—Mrs. W., aged 40. No children. Has had uterine tumor for fifteen years with recent pressure symptoms. Is in critical condition because of the pressure symptoms.

Operation.—Abdomen rapidly opened from ensiform to pubes. Large pedunculated myoma filled the entire abdominal cavity. This was delivered and a wedge-shaped incision, involving its base, made in the fundus. Uterine incision rapidly closed and the abdomen closed with through-and-through sutures. Patient rallied and made a rapid convalescence.

Post-Operative.—Thirty months later has gained forty-three pounds and has no symptoms referable to the pelvis.

A more recent case presented certain interesting features.

Mrs. X., aged 36. Was said to be six months pregnant. Several tumors perceptible on palpation. One large mass in the epigastrium, causing pressure symptoms, which demanded operation.

Operation.—Incision made with purpose of attempting to do a myomectomy in the hope of permitting pregnancy to go to term. Uterus found to be riddled with myomata, and as some had undergone cystic degeneration, the idea of a myomectomy was abandoned and a hysterectomy was performed. Uterus opened and a living thirty weeks fetus delivered. Abdomen closed with drainage.

Post-Operative.—Child lived seven hours. Mother recovered without symptoms. Discharged on the fourteenth day.

It would have been interesting to have seen the results of a myomectomy in this case; but we

could not depart from our rule of doing a hysterectomy when degenerative changes in the myoma can be demonstrated.

The conclusions that I would deduce from the foregoing statements are: (1) Hysterectomy in women over forty is a safer procedure than myomectomy. (2) In women under forty myomectomy should always be considered unless degenerative changes are present.

418 Keith and Perry Building.

DISCUSSION

DR. GEORGE GELLHORN, St. Louis: It is a great pleasure to talk on a paper such as we have just listened to. The only difficulty is that there is so little to discuss, because the author has, in as few words as possible, given us a lucid and unbiased exposé of myomectomy versus hysterectomy.

I quite agree with him that there should be more than one method in dealing with fibroids and that in certain well-defined cases enucleation of the tumor presents advantages over the removal of the entire uterus. I must confess, however, that I was somewhat surprised to hear that Dr. Frick has enucleated even submucous fibroids by laparotomy. I should have thought that while subserous and intramural fibroids should be enucleated from above, the natural way for shelling out a submucous fibroid would be through the vagina. As in submucous fibroids, particularly those that protrude into the uterine cavity, the presence of bacteria cannot be excluded with certainty, it would seem rather risky to do a laparotomy and cut down into this possibly infected uterine canal.

Dr. Frick has hinted at an argument which has been advanced against myomectomy. Some writers have challenged the advisability of enucleation since the patient was not going to conceive anyway. This objection is not borne out by facts. The relations between fibroids and conception have of late been greatly elucidated and we now know that subserous and intramural fibroids very rarely interfere with conception. Submucous fibroids cause sterility more frequently, first, owing to a distinct obstruction of the uterine canal, and secondly, because of concomitant endometritis. It is, therefore, necessary not only to enucleate the fibroid, but also to scrape the uterus thoroughly, if we want the patient to conceive. Several successful cases of my own illustrate and confirm this reasoning.

Unfortunately my time has expired and I could not do justice to Dr. Hill's paper in a few words, but I want to recommend it to your careful perusal, after it appears in print, for it is an essay full of good thought and accurate observation.

PSYCHOTHERAPY VS. EDDYISM

RATIONAL EDUCATION MUST BE THE PHYSICIAN'S SLOGAN*

R. WILLMAN, M.D.

ST. JOSEPH, MO.

The subject of my paper for this meeting may perhaps appear vague; those, however, who have given this subject some thought will agree with me that it has become an all-absorbing question

* Read in the Medical Section, Missouri State Medical Association, May, 1910.

of the day with a large portion of our people. I refer in particular to the wave of the so-called supernaturalism that has been rolling over the country for the past forty years, and more especially the past ten years, in the form of spiritualism, Eddyism, Zionism, Emmanuelism, etc. This wave, which the medical profession has in the past considered of little moment and treated with "silent contempt," has now assumed such proportions that the question may well be asked, "Is it not the duty, not only of the humanitarian and Christian, but also of all medical men, to unite in staying its onward sweep?" The medical profession, I may venture to say, should be especially interested and feel that it is in duty bound to give this subject the most serious attention.

My contention is that the business point is not the only thing involved: the profession owes a duty to the public, to medical science, and rational thought in general concerning ills "that flesh is heir to," and the proper treatment of the same. The "supernaturalism" movement assails the potency of the physician's ability to combat disease; it accuses him of ignorance, incompetency and unnaturalism in the treatment of the sick.

The movement like a hydra with many heads differs in method and practice according as it is known as Christian science, spiritualism, Emmanuelism, etc. In reality, however, this monster of many heads (call these heads "cults" or "sects") is a unit owing to a uniform aim. The one aim above all others is to shake, and if possible annihilate, the people's faith in the physician. They may have no recognized slogan as yet, but whenever one is adopted it will substantially be this: every man is his own savior.

It might be argued that after all the supernaturalism movement does little harm, that its followers are not legion, and that their treatment of the sick is nothing else than psychotherapy, a treatment not frowned upon by the medical profession. It is beyond the scope of this paper to discuss psychological therapeutics and the treatment of disease by metaphysical therapeutics. The medical profession as such has, since time immemorial, made use of these means and their development has progressed along with other therapeutics. The physician who pronounced Lady Macbeth "not so sick as she is troubled with thick-coming fancies that keep her from her rest," suggested therapeutic means for her use, and on telling this to Macbeth received the rather terse reply: "Throw physic to the dogs; I'll none of it." The point is that the doctor, besides possessing a knowledge of medicine, knew when psychotherapy was in place.

But let me ask, is it true that healing cults, such as Eddyism (Christian science), etc., teach and practice psychotherapy as such? I answer: they never did, nor do they now, introduce or

practice their so-called faith and art (primarily) for the betterment and relief of mankind. There may be no objection to their suggestive treatment, but Eddyites are not capable of treating the sick by any method whatever, for the reason that they do not, according to their faith, even believe in sickness, hence cannot diagnose disease or know when suggestive treatment is to be employed. To suggestive treatment as such there can be no objection; on the contrary, we maintain that when judiciously made use of in certain cases it will be productive of good results.

Our differences with the healing cults are based on other grounds, namely: first, we do most emphatically object to their methods of denying and misrepresenting known facts. Second, we object to their claims of divine power to heal the sick. Third, we object to the teaching that disease is a delusion, exists in mind only, is cured by mind only, and that drugs have no power except that which the mind bestows upon them.

And why do we object to this? Because by these doctrines many people are taught to ignore impaired conditions of health, are deprived of timely aid, and greatly imperil their lives. Think of how many children are allowed to suffer, whose parents are practical members of the healing cults.

Then there is the moral phase to be considered. How can love of truth, fairness, sympathetic charity and other flowers of virtues be implanted and wax strong in youthful hearts, when the icy blast of "it's all in the mind" leaves the heart cold and barren? "Do men gather grapes of thorns or figs of thistles?" What wonder then that Eddyites do not stop short with denying the reality of sickness, but go a step farther and deny the reality of sin? Eventually they may deny that there is any difference between right and wrong. Well might we exclaim with Mark Antony, "men have lost their reason."

If we look for an explanation of the growth and prosperity of the healing cults, I believe we shall not fall short of the mark when we attribute it to the extensive advertising and persistent agitation resorted to. Human nature is ever the same. Calamity howlers, patent medicine vendors, circus men, soothsayers and advertisers always find a hearing and followers. It was so 3,000 years ago in the days of Demosthenes and the Delphic oracles. It is so now in the days of Dowie and Mary Baker G. Eddy.

That selfishness plus "filthy lucre" play an important part in all this cannot be gainsaid. Take the case of J. A. Dowie, Mr. John Alexander Dowie, the founder of the Zionites. This gentleman fleeced enough of the easy ones to accumulate a fortune of more than \$20,000,000 in the course of ten years, and Mrs. Mary Baker G. Eddy, "foundress" of the Christian science

church, "foundress and proprietress" of the Boston Metaphysical College, according to her own statement turned out more than five thousand mind healers within seven years, each one of whom paid her \$300 tuition for a course of twelve lessons which were delivered in less than three hours time for each lesson. Besides this, a normal course of seven lessons at \$200 and an obstetric course of six lessons for which the student had to pay \$100 before he or she could enter. So far as the author knows, her books tell us nothing of the number of the last two courses she had given, but that there were a goodly number we need not doubt. Her books are another thing. Not only must a student and each member of the church have a text-book that costs him from three to five dollars, but the business was so arranged, and is yet, that every little while there appears a new and improved edition, of which every member must have a copy if he wishes to be up to date. And this means a sale of about 50,000 books, I am told, and that at \$3 to \$5 each shows up well in her cash account. Now these and similar results are the fruits reaped by the founders and healers.

But what are the fruits that the people reap? First, they reap no good that could not come to them from other persons who are able to give sound and wholesome instructions, e. g., the ministers, the humanitarians and the physicians. Second, they are misled in the belief that they are not sick and so are deprived of timely aid by the authorized physician and thus become incurable and untimely death may follow. Even if the patient is fortunate to see his error, and will call in the doctor at the eleventh hour, it is very often too late. All that is left for the physician is to sign a death certificate for one whose life probably could have been saved.

The pernicious influence of the healing cults has at all times been apparent to those who have given the subject rational and scientific thought. The religious phase is the common stock in trade and served as a guise, or to use a scriptural phrase, as a sheep's clothing for the wolf. "Tis the old story again of the charlatan finding a hearing."

To come back again to the question, how do we account for the growth and thriving business of the healers? People are fascinated by things that are out of the ordinary, it is true, but we also know that agitation is a great factor in this world and I believe agitation has most to do with the success of the healing cults. Constant agitation wields a great influence over those who are willing to listen, while tracts and books and imaginary cures make potent helpers. Healers and agitators are very persistent in relating wonderful stories and urge their hearers to read what others have to say about them, with the result that the willing listener gradually becomes a firm

believer to the detriment of his own health and life.

No healing cult has heretofore succeeded so admirably with its schemes as that of the Christian scientists; the reason is to be found in their perfect organization and unlimited financial backing. Mrs. Eddy, supported by a scheming set of men as a board of directors, through her daily papers, monthly journals and magazines (which are filled with advertisements), proclaims in most glowing terms the wonderful cures claimed to have been performed by the sect. Then there is an army of healers and agitators who meet people in their reading rooms and churches—"spotting places"—twice or oftener each week and argue all the weak points with the new-comers. In addition to these are the experience meetings for the excitement of the people. Is it therefore astonishing that some people are finally won over and led to believe that the physicians are not able to debate these questions with the scientists and other such cults?

There are remedial measures for this sad state of affairs. Why cannot we physicians meet agitation by counter-agitation? The work has been practically all on the side of the fakers; physicians have done little or nothing to counteract it and the little that has been done was limited to the profession itself. It is true that medical journals have come to the defense of the profession and have exposed nearly every fake from the start; the physician has been informed quite fully, but the clientage, the very people in whom the physicians are interested, are left to themselves without guide or instructor.

"The people have begged for bread and there is no one to break it for them," except the daily press. The press, however, cannot take up the question on a scientific basis. And, granting it did, this source of information would not be equal to the systematic efforts of the enemy. The medical profession is untiring in its efforts to battle against all sorts of contamination, contagious and infectious, that the human family may be subjected to. Oftentimes the professional man does this at the peril of his own income; and yet at the same time permits the people to live in ignorance as to the fact even more important that spiritualists, Christian scientists, etc., are in reality promoters in the spread of disease.

The remedy has practically been indicated by the foregoing remarks. Many, however, seem to believe that it can come about by legislation. Legislation is inadequate to deal with an affair of this kind. Many laws have been enacted, and in every instance of last resort failed to be upheld on statutory grounds. We cannot blame our legislative bodies, for they are sworn to uphold the constitution of our government. And was it not Daniel Webster who said: "We can give up

everything except our constitution"? Legislation along these lines is just what the healers desire, for that will afford them an opportunity of ridiculing the physician. They continually speak to their listeners of the need that the doctor has for the law of the land to protect him, while themselves can pose as persecuted Samaritans.

Since no remedy is to be found in legislation, we must look elsewhere. And there is a remedy at our command. It is to educate the people on a rational and absolutely indisputable basis; in other words, we must fight the cults on their own grounds. Church people as a whole, and professional men and women have their minds made up, but there is a vast multitude besides them whose minds are not made up and it is that class that must be reached.

An excellent means would be to furnish works which would deal with the subject in a manner that is exhaustive, indisputably convincing and based upon the same authority which is erroneously used in support of the theories advanced by the pseudo-healing cults. Ways and means should be found to bring the question plainly and permanently before the people for their study and discussion; a thing so much needed. No one who really knows the fallacies of these cults will have anything to do with them. A sermon, a lecture and a column in the newspaper may be good things but at the end of a few days or weeks they are forgotten. Text books on the subject would certainly be complete and permanent sources of information. Occasions will arise particularly in company, when the question is brought up. The text-book could then be referred to.

It is for want of knowing the truth that the rank and file are adherents of the healing cults; and all they need is a reliable source for information. Therefore let rational education be the slogan, and to make it effective the physicians must furnish the fire!

NOTE.—A treatise, "The Errors of Mind Healing," by R. Willman, M.D., St. Joseph, Mo., is a comprehensive work on this subject. Price \$1. postage included. To physicians, in lots of ten or more at 60 cents each, for gratuitous distribution.

INSTRUCTION OF THE PUBLIC IN ANTITUBERCULOSIS MEASURES BY A TRAVELING CAR EXHIBIT

GEORGE HOMAN, M.D.

Chairman Executive Committee, Missouri Association for the Relief and Control of Tuberculosis

ST. LOUIS

When the Missouri Association for the Relief and Control of Tuberculosis was formed in 1907 a main purpose of the organization was declared

to be the enlightenment of the public on the disease in question by means of lectures, addresses, demonstrations and exhibits, these activities being a necessary preliminary to a right understanding of the subject thus presented, and to afford an intelligent basis on which local organization could be brought about.

To the extent that its limited means allowed a consistent effort was therefore made by the association to enlist the interest and aid of local communities through their medical, social and business organizations, and with some success, the medical societies naturally being the leaders and chief supporters of such movements and auxiliary branches were formed in a number of cities and counties of the state. It was found, however, that these bodies tended in time to become listless, and in casting about for other means of awakening interest in the subject of tuberculosis and its prevention, the idea was conceived that a well-chosen exhibit installed in a railway coach and sent over the railroad lines in charge of a qualified staff would very likely prove to be the most effective form in which such an object lesson could be presented to the public at large.

With this end in view the association early in 1908 made overtures to the State Board of Health suggesting cooperation and joint effort to accomplish this undertaking, but as an outcome difficulties appeared and the negotiations were brought to a close.

The project, however, was not lost sight of and endeavors were made to secure funds for this purpose, which hope was realized last June when the announcement was made in the Section on Preventive Medicine and Public Hygiene at the annual meeting of the American Medical Association in St. Louis that a check was in hand ample in amount to cover for a limited time the expenses involved in the equipment and operation of the contemplated railroad car service.*

The managers of railway systems operating lines in Missouri were at once approached with representations touching the plans of the association, with the result of securing a prompt response from the St. Louis and San Francisco System, a first-class day coach being tendered with a promise that it would be turned out of the shops in complete order to receive the exhibit as planned, with special devices for hanging and lighting, no charge to be made for the car or for hauling it, while free transportation for five persons would be supplied, if desired, this gratuitous service including even gas, ice, etc.

* The donor of this fund was Mr. Adolphus Busch, a distinguished citizen of St. Louis, who is widely known as a generous giver to many worthy causes. The work of preparing the car for the road in all its details was placed in the hands of a subcommittee composed of Mr. J. H. Lynch, treasurer of the association, Dr. James Stewart, and Mr. Robert J. Newton, secretary of the Municipal Commission on Tuberculosis. Miss W. Doyle, assistant secretary to the association, served as advance agent to the car.

The St. Louis Municipal Commission on Tuberculosis with generous public spirit offered the free use of their valuable framed exhibit, which it was found could be used to superior advantage in fitting out the car, and acknowledgment of this graceful courtesy was made accordingly.

The final details respecting the supervision, equipment, routing, etc., of the car were completed toward the end of July, and August 1 was fixed on as the date for starting, a time schedule having been prepared by the officials of the road which covered twenty-four days and provided for stops and demonstrations at thirty-eight towns and cities located in twenty-eight different counties.

It was decided that the offer made by Dr. James Stewart, medical supervisor to the St. Louis Board of Education, of his services free as lecturer in full charge of the car be gratefully accepted, and he was provided with a paid helper to look after the property, work the stereopticon and give aid in other ways as required, sleeping quarters being provided for him in the car. It was arranged further that the assistant secretary should travel from five to seven days in advance of the car and make all necessary arrangements

In fitting up the car the space was utilized to the utmost by the device of a partition lengthwise in the center formed of framed pictures hung back to back, as imperfectly shown in the accompanying illustration. The end and side walls were also fully utilized, and on shelves and in lockers an ample supply of literature, buttons, post cards, sanitary folding cups, etc., was to be found.

The association was fortunate in securing the services of Dr. Stewart for this work, who, as a former member of the Missouri General Assembly, was successful in securing legislation providing for the state sanatorium now located at Mount Vernon. A part of the purpose of this tour was that every proper effort should be made to meet the candidates for the legislature in each county and explain to them the objects in view, and by thus interesting them and their people, to secure support for such recommendations on public health lines as may be submitted to the



Fig. 1.—Exterior view of antituberculosis exhibit car.

for the meetings with the local people at the designated stopping places, getting at once in touch with public officials, physicians, newspaper men, clergy, business men, club women, etc., notices being regularly mailed ahead stating what was desired by her.

The car left St. Louis as per schedule going southward through territory bordering on the Mississippi River to the extreme southeastern part of the state, thence westward along the southern slope of the Ozarks to Springfield and the thickly peopled lead and zinc mining districts of southwest Missouri; then northward along the western border to Kansas City, where two days were spent, the exhibit being removed from the car to the business center of the city. Returning to Springfield by another route, St. Louis was reached by the trunk line of the Frisco system, the schedule having been extended four days in response to a popular demand for more time at different stopping places, the tour closing August 28.



Fig. 2.—Interior view of antituberculosis car.

legislative body by the governor at the session which opens next January, and in this direction much encouragement is reported as a result of the trip. Indeed, it may be claimed with justice, that for a venture which, so far as known, stands unique in its character as a pioneer effort, the undertaking was a conspicuous success, large and interested gatherings being the rule, tuberculous people in rural parts sometimes traveling as many as thirty or forty miles to reach the car in the hope of learning something of benefit to themselves.

It is evident that the higher officials of some of the leading railway lines are beginning to realize the value of such public teaching in disease repression, and this fact was plainly shown in the cordial zeal and skill with which this undertaking was promoted down to the minutest

details by Mr. A. Hilton, general passenger agent of the Frisco road, supplemented at certain points by the Saint Louis Southwestern, and the Missouri Pacific railroads, reaching in all a population, not including Kansas City, of nearly a quarter million of people. 1,248 miles being traversed in the tour of the car.

The Missouri, Kansas and Texas Railway management have tendered to this association every facility at their disposal for the operation of the exhibit car over their lines, by means of which a very considerable additional population can be reached, and it is hoped that all the other systems will see the advantage of like action in the warfare against consumption.

A keen interest in public health affairs could have been the only inducement which led the governor of Missouri, Hon. Herbert S. Hadley, to consent to accept the presidency of this association, and this interest was shown to a still greater degree by the official naming of a commission of twenty or more citizens of this state whose duty it will be to make thorough inquiry respecting tuberculosis in Missouri, and frame a report on which he may base recommendations to the legislature for remedial action next year.

While it was found that a considerable financial outlay is involved in the operation of such a traveling exhibit, even when much necessary service is rendered free of charge, still it is firmly believed that the returns to the public in the form of a better knowledge of disease prevention fully repays such expenditures, and it is the hope of the association that additional financial means will be forthcoming to enable this form of instruction to be pushed into every part of the state where the railroads penetrate. Thus far practically the whole burden of this work has been borne in St. Louis, and the available funds of the association have been exhausted in the enterprise herein sketched.

As before indicated, much of the best help and cooperation at the different points was given by the organized medical profession, officials of local societies, councilors, and the president of the state association, Dr. H. E. Pearse, all lending a hand with full sympathy and good will to forward the cause. A number of leading physicians along the route even volunteered their services for work with the car if future tours were found possible. Another factor making for the success achieved was the public press, many of the papers giving columns of space to descriptions, with pictures, etc., showing the work and purposes of the car.

On its second tour the car left St. Louis September 7, via the Missouri, Kansas and Texas system, the plan being to traverse the entire central part of the state from Hannibal on the Mississippi River to St. Joseph on the western border, covering both sides of the Missouri River

and visiting some of the oldest and most thickly populated parts of the state. The return route was to be by way of the Rock Island railroad, this system equaling the others in the courtesies and services freely extended. The success of this further undertaking seems undoubted, as increasing attendance at lectures, with financial support, and growing public interest have uniformly marked its course.

The car on this tour was in charge of Dr. S. Tuckerman, whose recent experience in antituberculosis work in and around Boston made him exceptionally well fitted for this employment, the results attained being most satisfactory. The tour, as at first planned, was not carried out in its entirety, as circumstances prevented the Association from taking advantage of the courtesies proffered by the management of the Rock Island lines. The car was stationed at Sedalia during the State Fair week which closed October 7. While there the exhibit was in the care of Miss Doyle.

FALLACIES IN THE UNDERSTANDING OF ANTI-SEPTICS AND GERMICIDES WITH SPECIAL REFERENCE TO BICHLORID OF MERCURY *

MARSH PITZMAN, M.D.

ST. LOUIS, MO.

A study that brings into discussion fundamental principles of surgery; therefore I trust it is of general interest.

An infected wound in this country is, in the hands of the majority of surgeons, treated by a bichlorid moist pack. Against this general procedure, save as to be noted later, I take no exception. However, a large number of text-books and surgeons believe that this bichlorid aids in healing the infection by exerting an antiseptic action on the bacteria within the tissues. That bichlorid of mercury as used does not exert such antiseptic action is my main proposition.

We must consider first the chemical structure of bichlorid of mercury. As the name implies, two atoms of chlorin are combined with one of mercury. It is due to the mercury that bichlorid possesses its specific action on syphilis, and in overdoses poisoning—to the chlorin that bichlorid possesses its caustic and general germicidal action. For mercury combined with white of an egg at 1-1200 shows absolutely no antiseptic or germicidal action, though of course it would be antisiphilitic and poisonous (Ueber das desinficierende Verhalten des Sublimats und Silber Nitrats in Eiweisshaltigen Flüssigkeiten: *Hygienische Rundschau*, 1909, No. 12; own research). Therefore, when bichlorid is used as an

* Read in the General Section, Missouri State Medical Association, Hannibal, May, 1910.

antiseptic or germicide, the mercury atom is merely the carrier of the active germicide (chlorine).

Now as regards the combination of bichlorid of mercury with albuminous fluids, as in practical surgery. The research literature is confusing and contradictory. That is due to the fact that a sharp distinction between bichlorid of mercury-albumin mixtures with or without excess of bichlorid has not been drawn.

My work in the Hygienic Institute of Berlin proves, I believe, that bichlorid of mercury combines with albumins in a direct ratio of quantities; that, until excess of bichlorid of mercury is present in the bichlorid-albumin mixture, there is absolutely no antiseptic or germicidal action; further, that when excess of bichlorid is present in said bichlorid albumin mixture, it acts promptly as a germicide, never as an antiseptic against negative (non-sporulated) forms of bacteria. In human serum this division point, this point at which bichlorid begins to exist as a free germicide, is approximately 1-10,000.

Now let us turn to the practical application of these facts. If bichlorid of mercury is to exert any trace of antiseptic or germicidal action on an infected area, it must exist in the part in amounts greater than 1-10,000 of serum. As the albuminous fluids of the body are continuous and circulating, we would expect that the affinity of all albumins of the body would have to be satisfied before there would be a local excess of free bichlorid of mercury, which on account of poisoning is out of the question. Further, while free bichlorid of mercury (in excess of 1-10,000 of serum) would act as a germicide on all bacteria, it would be irritant, caustic and destructive to the body cells as well. At the price of the destruction of body tissues, the use of free bichlorid would again be out of question. On these two propositions I maintain that free bichlorid of mercury does not exist as an active chemical in the infected areas, therefore has no antiseptic or germicidal action, and might well rest my case.

But the belief that bichlorid in practice does exert an antiseptic action on the progress of an inflammation is so firmly fixed in the surgical mind that many of this audience will undoubtedly remain skeptical. I sympathize with and admire their steadfastness. Some of you have seen cases of salivation and even of mercurial poisoning from absorption, and will insist that bichlorid is absorbed and in quantities sufficient to exert a germicidal action. The answer is: salivation and poisoning are so extremely rare, are so uncommon even in large lacerated wounds, as to justify the conclusion that bichlorid from a dressing is but rarely absorbed into the body serum. However, to put the question to a scientific test. Eight patients with large infected

wounds from my service at St. Louis City Hospital of March and April, 1908, who had been treated throughout with liberal bichlorid packs, were directly examined for absorption. The chemical tests were based on the fact that bichlorid absorbed into the serum is excreted in the urine. Work was done under Dr. Warren, professor of chemistry in Washington University. The potassium chlorate—hydrochloric acid—precipitated as mercury sulphid and collected on copper wire method was selected, sensitive by control beyond 1/500 grain bichlorid. Four cases as control of internal bichlorid medication all showed mercury in the urine. The eight cases under bichlorid pack all failed to show presence of mercury in the urine. The literature contains no contrary reports. Therefore I feel justified in concluding that bichlorid of mercury as used in a moist pack is not ordinarily absorbed into the tissue fluids.

To recapitulate, I maintain that bichlorid of mercury does not exert its reputed antiseptic action on the bacteria in the tissues, for the following reasons:

1. Because it would have to exist in the tissues as excess free bichlorid, which is scientifically hardly conceivable.
2. Because, if it existed as free bichlorid, it would destroy the body cells as well as the bacteria.
3. Because it is ordinarily not absorbed from a dressing.

Which concludes the scientific portion proper of my paper.

Will you bear with me longer? Like most other scientific facts it has its practical bearings, and it is the practical bearings that interested me in the subject, that bring me before you to-day.

Do I then advocate the rejection of bichlorid of mercury from practical surgery? Far from it. My object has been simply to define what may rationally be expected of it.

Do I then advocate the substitution of other antiseptics or germicides? None other that I know is more suited for practical use. In fact I should strongly advocate the use of the well-known antiseptics, whose powers and limitations we know, rather than to fly to others that we know not of.

Do any of the other germicides really exert an antiseptic action on the bacteria within the tissues? I feel confident they do not, for if so they would soon have superseded bichlorid on clinical test. And certainly none has or has had the scientific standing of this bichlorid of mercury. As regards the judgment of the newer antiseptics every day offered the medical profession, it is a peculiarly significant fact that, after over twenty years of clinical and research work by some of the best medical minds of the age,

there are still such fundamental differences of opinion in regard to our standard germicides.

Are antiseptics and germicides then valueless? On the contrary their use from time immemorial has proved their immense value. Their prompt application to a fresh wound will prevent infection and their use in infected wounds will in great measure prevent reinfection with a more virulent organism. If asepsis approaches perfection, which it does rarely, then antiseptics and germicides may be dispensed with in infected wounds. The strong surgical belief in the antiseptic action of chemicals on infected wounds is due, according to my best lights, to this check on the asepsis, to this prevention of reinfection.

But there is one greater, one more serious fault, due in great part to the belief in the actual antiseptic power in the tissues. I refer to neglect of rest, that first principle of surgery! Hilton's classic on "Rest and Pain" and, in modern literature, Ochsner's "Clinical Surgery"—how clearly, strongly and convincingly they put their arguments must be unknown to many of the modern surgeons. In their eagerness to apply antiseptics, they dress acute spreading infections many times during the twenty-four hours, to the neglect of rest! They incise a cellulitis before pus can localize, so that the antiseptic may penetrate, again forgetful of that prime requisite, rest! The belief in the actual antiseptic power of chemicals must bear its full share of that grave charge, than which is no fault more crying in modern surgery, neglect of rest!

In more serious infections the error of using strong antiseptics is common and often grave in its consequences. If the solution be strong, or the skin irritable, so that a dermatitis follow, rest would be disturbed. In such cases therefore it is important to use a very weak antiseptic, or perhaps preferably plain water or saline solution. Such a pack with splints should be undisturbed for at least forty-eight hours, as Ochsner so convincingly shows. To those who have accepted my argument there can no longer be mystery in the use of the saline pack.

The question of cleansers, stimulants, astringents, ointments and dusting powders has been purposely omitted from the discussion, on the ground that their action is not due to their antiseptic or germicidal properties. Often confusion arises from the fact that the same chemical may be used for different ends; as, for example, silver nitrate as a germicide prophylactic against ophthalmia neonatorum, whereas in chronic conjunctivitis its use is dependent upon its stimulating and astringent qualities. The question whether the clinical value of many chemicals is due to their antiseptic or, on the other hand, to their cleansing, stimulant, or astringent properties is in many cases still *sub judice*. But that's another story.

In conclusion let me state I practice what I preach. Clinically—well, I'll not insult your intelligence by reporting cases which, in comparison with the observed material, could be but as a drop in an ocean.

Linmar Building.

PHARMACISTS REFUSE TO SELL SOOTHING SYRUPS.—The action taken by the Philadelphia Association of Retail Druggists in condemning the promiscuous sale of soothing syrups containing habit-forming drugs is a step which must commend itself alike to physicians and laymen. At a meeting held on August 5 that association adopted the following resolutions:

We, the members of the Philadelphia Association of Retail Druggists, realizing the danger to public health by the indiscriminate sale and use of habit-forming drugs, when present in proprietary or patent medicines, especially that class of preparations included under "soothing syrups" and "comforters" designed for use for infants; also appreciating the earnest efforts of the director of the Department of Public Health and Charities of Philadelphia to limit the sale and use of these dangerous preparations:

Resolve, That the members of the Philadelphia Association of Retail Druggists discourage the sale, unless ordered by a physician on prescription, of any proprietary or patent preparation containing these habit-forming drugs, and also,

Resolve, That this Association commend Dr. Joseph S. Neff, director of the Department of Public Health and Charities, for his earnest efforts to prevent this indiscriminate sale and use of such dangerous preparations, and that the members of this association give to the department every possible aid and encouragement in this excellent work.

The pharmacists of Philadelphia have ever taken a leading rôle in pharmaceutical affairs. They were the first to establish a school of pharmacy in this country, or indeed in the world. From among them have arisen leaders who have reflected credit on their calling and on their city. It is not a matter of astonishment, therefore, that in this matter they should have taken the lead and that their action should have found a large following. For we observe that in several other cities of Pennsylvania, in Baltimore and in the national capital similar action has been taken or is contemplated. Where pharmacists take such an attitude it is the duty of the physician to voice his appreciation. For the majority of mankind the consciousness of rectitude alone is but poor compensation, and pharmacists who are willing to sacrifice their commercial interests for the public welfare may well expect to receive at least a word of commendation from the physicians with whom they come in personal contact.—*New York Medical Journal*.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

NOVEMBER, 1910.

EDITORIALS

REGISTRARS OF VITAL STATISTICS

In another column we publish some correspondence relating to the appointment of unethical practitioners to act as registrars for the bureau of vital statistics. We invite the members to read this correspondence carefully for it indicates a way by which undesirable persons holding the office of registrar may be removed, if the Board of Health is furnished with satisfactory evidence of the unfitness of the registrar.

It is to be deplored that the State Association must step in at this time and point the way to cleaning the ranks of the registrars. It would have been much more consistent for the Board to have conferred with the organized profession in the beginning and thus have reduced to a minimum the nuisance of trying objectionable office holders; but it is a condition that can not be remedied by piling regrets for past acts. The Board of Health having placed upon our members the burden of laying complaint in order to get rid of the undesirables that duty will be cheerfully assumed.

The impression has prevailed in certain quarters in the state that a protest against retaining registrars in office because of their unprofessional standing and unethical conduct would not be met with favor by the members of the Board unless there were other reasons satisfactory to them than simple fracture of established canons. We are very glad to find from the correspondence that this is an erroneous impression.

In accordance with the expressed desire of the secretary of the Board of Health we have filed a complaint against one of the registrars, whose advertising proclivities debar him from recognition by the respectable element in the profession, and shall publish the action of the board as soon as we are informed of the result.

If there are other registrars in the state who are unfit to fill such an honorable and representative position we suggest that the board be petitioned, through the filing of a complaint and a statement of the acts which make the registrar unfit, to remove him and appoint an ethical member of the profession in his place. If it should happen that the district could not boast a physician whose character and behavior would entitle

him to hold a position of honor and trust, the board should find a non-medical person of standing and ability who could discharge the duties of the office.

OPTOMETRY

Last month we called attention to the fact that the opticians would make an effort to pass an optometry law at the next meeting of the legislature, and warned the members to be prepared to oppose any such movement. It is imperative that this subject be strongly impressed on the membership and we urge that everyone be ready to fight the adoption of any law permitting the opticians to enter the field of medicine by the optometry back door.

The state of Texas is now having a battle with these people; the *Journal of the Texas State Medical Association* makes it plain to the members in that state that not only must they be prepared to fight, but they must be wary of the duplicity of the optical fraternity, who would deceive the physician concerning the real intent of the proposed legislation. We quote from an editorial in the October issue of the *Texas Journal*:

We are informed that our friends, the opticians, are quietly circulating petitions among the doctors in the interest of future efforts towards securing a law recognizing optometry, so-called, as a profession, and requiring an examination of all who would refract the eye or attempt to fit glasses. Every well informed physician is aware of the fact that the fitting of glasses often requires expert knowledge, and readily agrees that the practice should not be generally allowed because of the liability of damage to the eye. But every physician is not likely to consider that the optician has but a limited knowledge of the eye and its pathology, and that his brief course of study has been mostly that of mathematics. Neither is the full significance of the proposed law made plain to the doctor in the petition he is requested to sign. And so the unwary, through the disingenuous presentation of the case, is persuaded to lend assistance to an unworthy cause.

The opticians shrewdly calculate that the presentation of such petitions before the legislature will rather effectually disarm the opposition of our legislative committee and our committee on optometry, and render the progress of the pursuit of their object comparatively smooth. It will be recalled that a bill legalizing optometry successfully passed one branch of the last legislature, and was killed in the committee of the other branch only after the most energetic presentation of the dangers of such a law by our efficient committee on optometry. It is doubtful whether even this effort would have been successful had not our committee presented undeniable evidence of the hurtful inadequacy in their practice of some of the foremost opticians present at the time in advocacy of the bill.

The situation in Missouri is almost identical with that in Texas, and therefore we wish to caution our members against being led into a false position by allowing some one to influence them to sign some document or petition or postal card favoring the recognition of optometry. In

Wisconsin the physicians were solicited by post-card, with reply card attached, for opinions of an optometry law, and almost one-half of the members of the state association sent favorable replies, notwithstanding a warning against such action published in the state journal. We hope none of our members will fall into such an error; and the only way to prevent it is to make this a subject of discussion in the county societies and warn every member against lending his influence in favor of such an unfit measure.

TWENTY-DAY CLAUSE IN THE MEDICAL PRACTICE ACT RESCINDED

We learn that members in some parts of the state are still of the opinion that the clause in the medical practice act, which permitted a person to practice for a period of twenty days before registering with the local authorities, is still in force, and that therefore the county society cannot proceed against quacks and charlatans during that period. This is a wrong impression. The twenty-day clause was rescinded at the last meeting of the legislature, and the law now requires that any person who wishes to practice medicine must register with the local authorities of the county in which he desires to establish himself before he can legally take up his professional work.

The importance of this amendment to the practice act lies in the fact that it gives the members of the Association absolute control over the quacks and charlatans who hitherto have been permitted to impose on the public for a period of twenty days before they could be proceeded against on the charge of practicing medicine without a license. Of course, these people always cleaned up and cleared out before they became amenable to the law. As the law now stands, it remains with the county society to watch for impostors who, when they set themselves up in business in defiance of the law, should be prosecuted. Not even a medical college graduate may begin practicing unless he holds a license from the State Board of Health and registers with the county authorities.

In the case of patent-medicine venders and itinerant quacks who sell medicines for a night or two and then depart, leaving in their wake lightened purses and disappointed hopes of relief from disease, the medical practice act cannot be invoked; this class of quacks must be prosecuted under the pure food and drugs act. To do so it must be established that they are selling impure drugs and medicines or drugs or medicines which are misbranded.

If the members will give some attention to these traveling fakes and prosecute those who are found to be violating the law, their visits will soon be rarer and finally cease altogether.

CATALOGUE OF ST. LOUIS MEDICAL LIBRARY

For the information of our readers we publish in this issue a partial list of the books in the St. Louis Medical Library; we shall continue this plan until all the books and journals in the library have been listed and catalogued.

The St. Louis Medical Library is a very important and helpful institution in the medical life of St. Louis and of the state. From a very small beginning it has grown to be an extensive and satisfactory repository of books and journals, making it one of the best libraries in the country.

In addition to the medical library at St. Louis, the Greene County Medical Society maintains a splendid collection of books and journals and is fast building a handsome library at Springfield; the State University has a splendid working medical department in its library, and the medical library at Kansas City is being reorganized. The members of the Association should feel considerable pride in these libraries and give them all the support they can. Good medical libraries are essential complements to the practitioner's own collection.

ABOUT OUR ADVERTISEMENTS

Since the Association has taken over the full control of *THE JOURNAL*, our advertisements have been down very considerably because it is not proper that the organized medical profession should permit the appearance in its official organ of any advertisements which did not present every evidence of reliability and honesty of exploitation. For this reason all advertisements of proprietary preparations must have the approval of the Council on Pharmacy and Chemistry, and therefore such articles may be regarded as possessing the qualities that the advertiser attributes to them.

It is only right and proper that the members of the Association should manifest a reciprocal spirit toward those firms who advertise in *THE JOURNAL*; and, indeed, it should be a duty willingly fulfilled to patronize our advertisers, for they have met the requirements demanded of them to establish their right to such patronage and expect and ought to receive the support of the members whenever goods advertised in *THE JOURNAL* are needed and purchased. Furthermore, members should not fail to inform the advertiser that the appearance of his announcement in our *JOURNAL* was at least one of the reasons for extending the patronage to him. This is a simple courtesy, valuable to both advertiser and *JOURNAL* and usually extended in all lines of business—and it must not be forgotten that the advertising department of *THE JOURNAL* is the business department, and on its success de-

depends in large degree the success of THE JOURNAL. We ask the cooperation of the members in this direction, for only by such assistance can THE JOURNAL be made wholly successful.

NOTES

DR. F. F. ZELLE of St. Louis was married to Miss Amelia E. Maunder on September 28.

DR. L. E. MISSIMORE of St. Louis and Miss Lucile Alexander were married in St. Louis on October 5.

DR. ARTHUR W. THOMAS of Springfield was married to Miss Edith Jones of the same city on October 19.

THE NORTH MISSOURI MEDICAL ASSOCIATION held its semi-annual meeting at Kirksville, on October 27.

THE SOUTHWEST MISSOURI MEDICAL ASSOCIATION will hold its semi-annual meeting at Springfield, November 3 and 4.

A SUPPLY of Ehrlich-Hata "606" has been received by St. Louis physicians and will be used on suitable cases in several institutions.

DR. PAUL F. COLE of Steffenville, Secretary of Lewis County Medical Society, was married to Miss Nora Yancey of LaBell, on October 12.

DR. D. WALTON HALL of Kansas City and Miss Katherine Motter of St. Joseph were married at the home of the bride's parents on October 5.

MEDICAL inspection of the public schools at Columbia will be inaugurated at an early date. Dr. Guy L. Noyes has been appointed medical inspector.

DR. LLEWELLYN WILLIAMSON of St. Louis has reentered the Army service with the rank of major. He is stationed for the present at Fort D. A. Russell, Cheyenne, Wyo.

DR. EMORY SHY of Knob Noster was married to Miss Esther Rothwell at the home of the bride's parents in Rocky Ford, Colorado, on October 11. They will reside in Knob Noster.

THE GRAND ISLAND RAILWAY SURGEONS held a meeting in St. Joseph, on October 6. Dr. Barton Pitts of St. Joseph was elected president for the coming year, and Dr. C. H. Wallace of St. Joseph was elected secretary.

WORK has begun on the new Infirmary Building at the State Sanatorium for tuberculosis, at Mt. Vernon. Dr. C. C. English of Kansas City has been appointed first assistant physician in the place of Dr. Orriek who resigned.

DR. HENRY SCHWARZ, President of St. Louis Medical Society, was elected a vice-president of the American Association of Obstetrics and Gynecologists at the recent meeting in Syracuse. The Association meets next year in Louisville, Ky.

OBITUARY.—Dr. John A. Leavy, St. Louis Medical College, 1851, of St. Louis, honor member of St. Louis Medical Society, surgeon on General Hardee's staff of the Confederate Army during the Civil War, died at his home, October 24, of apoplexy, aged 76.

DR. LEO LOEB, formerly Professor of Pathology at the University of Pennsylvania, has taken up his duties as director of the research department of the Barnard Free Skin and Cancer Hospital. He will be assisted by his two former assistants, Drs. Mayer L. Fleisher and O. Ishii.

A RESEARCH SOCIETY devoted to the investigation of tuberculosis and its complications has been formed. The object of the society is to investigate and report on the different phases of tuberculosis. The clinics and hospitals will be searched for material suitable for research and clinic work.

THROUGH an error in our last issue Dr. Bannister of Omaha was mentioned as the newly elected vice-president of the Missouri Valley Medical Society. We desire to correct this mistake. Dr. J. M. Bell of St. Joseph was elected first vice-president, Dr. Bannister being elected second vice-president.

THE STATE BOARD OF CHARITIES AND CORRECTIONS will meet at Chillicothe, November 11 and 12. On the evening of November 11, tuberculosis in the state will be the subject for discussion, and on November 12 a public lecture will be given. The St. Louis Commission on Tuberculosis will send its exhibit to the meeting.

THE west wing addition to the St. Louis Sanitarium has been completed and all insane patients housed in the Infirmary have been transferred to the Sanitarium. The quarters vacated by the

insane patients will be occupied by the poor patients, hitherto cared for at the Female Hospital, and the Female Hospital will be abandoned for the present.

MISSOURI graduates of the Jefferson Medical College have organized the Jefferson Alumni Association of Missouri with corresponding members in Illinois. The officers of the Association are: president, Dr. William Porter, St. Louis; secretary, Dr. A. T. Muench, St. Louis. Graduates of Jefferson Medical College in Missouri and Illinois are invited to become corresponding members.

THE Kansas City *Medical Index-Lancet* will be consolidated with the *Medical Herald* of St. Joseph, on Jan. 1, 1910. The *Index-Lancet* has had thirty-two years of existence, and since 1899 has been under the editorial management of Dr. John Puntou. Drs. Charles W. Fassett and S. Grover Burnett will publish and edit the *Index-Lancet* until the consolidation is accomplished and these two gentlemen will then continue in charge of the consolidated publication as the *Medical Herald*.

THE SOUTHEAST MISSOURI MEDICAL ASSOCIATION held its 34th semi-annual meeting at Illmo. October 18, 19 and 20. This is one of the most progressive district societies in the state. The attendance was very satisfactory and the papers were of the practical and helpful kind that reflect the every day experience of observing physicians. The society adopted resolutions favoring the establishment of a department of public health as proposed by Senator Owen. The spring meeting will be held at Dexter.

THE MEDICAL ASSOCIATION OF THE SOUTHWEST held its fifth annual meeting at Wichita, Kansas, October 11 and 12. Resolutions were adopted condemning the use of antiseptics in the preservation of food products, and favoring the establishment of a department of public health. The new officers are: president, Dr. M. L. Perry, Parsons, Kansas; vice-presidents, Drs. J. M. Griffin, Sulphur Springs, Kansas; W. H. Stauffer, St. Louis; W. L. Allison, Fort Worth, Texas; Secretary-Treasurer, Dr. F. H. Clark, El Reno (reelected). The next meeting will be held at Oklahoma City, Oklahoma, the session to cover a period of two and one-half days.

VIOLATORS OF THE MISSOURI PHARMACY LAW.—The Board of Pharmacy of Missouri held a meeting at the Southern Hotel, August 11, at which the board inaugurated its crusade against pharmacists who were illegally selling cocaine, morphin and other drugs.

At this meeting Otto M. Brooks, of St. Louis, a regular licensed pharmacist, who was formerly

in the employ of a store where cocaine was illegally sold, was cited to appear before the board; after due hearing his license was revoked for violations of the law concerning the sale of cocaine.

In the case of M. J. Miller, a registered pharmacist of St. Louis, the board, after hearing evidence of the charges against him, ordered the secretary to administer a reprimand for violation of the law.

In the case of A. Johnson, Watson, Mo., the board found the evidence did not sustain the charges, and the same were dismissed.

The board also decided to take aggressive steps to work in conjunction with the local Board of Health and the police department of St. Louis, with a view of suppressing all places where cocaine, morphin, opium or other narcotic drugs were sold to the public contrary to the law of the State of Missouri.

The meeting was attended by William Mittlebach, president of the board, Boonville; Charles E. Zimm, secretary of the board, Kansas City, as well as Charles Gictner, W. C. Bender and H. W. Servant, members of the board.—*Meyer Brothers Druggist*.

A RULING AGAINST OSTEOPATHY.—Justice Putnam of the Brooklyn Supreme Court, on August 26, handed down a decision in the case of Charles F. Bandel, an osteopath, who applied for a mandamus to compel the Board of Health of New York to grant a burial permit on a death certificate signed by him. Justice Putnam upholds the demurrer of the corporation council and sustains the action of the board. In a memorandum accompanying the decision Justice Putnam says: "While the state has wisely allowed the practice of osteopathy, it does not follow that it thereby holds out one, without any practice in surgery or experience in prescribing drugs, as fully qualified to certify the cause of death. Indeed, it is not certain that a board of health would be compelled to take the certificate of death of all licensed physicians in the event of an epidemic or spread of some new and mysterious disease. Granted that the theoretical education of the osteopath is of a standard equal to that of a doctor of medicine, after he enters on his profession his practice is restricted, so that it does not appear that he can make the tests by examination of blood and tissues by which alone many diseases can be certainly detected. The sanitary code is discriminatory, but the discrimination is not personal and arbitrary. It is based on a limitation which the osteopath may be said to make for himself, and deprives him of no rights which he ought to exercise consistent with the public safety."—*Medical Record*.

[The limitation of the field of usefulness and knowledge of osteopaths is being discerned by law.—Ed.].

CORRESPONDENCE

PLEASED WITH THE JOURNAL

CHARLESTON, Mo., Oct. 22, 1910.

To the Editor:—I wish to congratulate you on the recent improvement in the contents and general make-up of the State Medical Journal. Personally I have appreciated THE JOURNAL since the publication of its first issue, and its present rejuvenated condition should give great satisfaction to the profession generally and redound to the credit of both the editorial and business departments. I am,

Yours sincerely,

H. L. REID.

To the Editor:—The neat appearance of THE JOURNAL in its "new dress" is we think an improvement, and indicates the progressive attitude which we like to see taken by the official organ of the regular medical profession of the great state of Missouri. However, of infinitely greater import to us as a profession is the higher standard of requirements made for the advertising columns of our journal. This commendable move, tending toward a cleaner publication, should have the hearty endorsement and support of every member of our Association.

Let us keep THE JOURNAL so free from objectionable material that any physician can point to it with pride and pleasure, and never with embarrassment.

Yours very truly,

T. W. COTTON,
Councillor, 24th District.

KANSAS CITY, Mo., Sept. 28, 1910.

To the Editor:—I want to express my appreciation of our JOURNAL in its new form. It is certainly the equal of any in the country. Great credit is due you and the board for this result.

Very truly,
GEORGE CLARK MOSIER.

OBJECTIONABLE REGISTRARS

Sept. 24, 1910.

DR. E. J. GOODWIN, St. Louis, Mo.

Dear Sir:—We fully endorse your views as we read them in the last JOURNAL in regard to vital statistics, but when the country doctor is required to make birth and death certificates to an advertising Registrar, what do you think of it? We enclose a sample; this doctor is the Registrar in a township in which we do some work, and the Secretary of the Board of Health is acquainted with the facts.

Yours truly,
DRS. _____ & _____.

ST. LOUIS, Mo., Sept. 26, 1910.

Dear Doctors:—Yours of the 24th, with information about the local Registrar is received. I am glad you sent this to me, and I will take the matter up with

the Secretary of the State Board of Health and let you know what he says.

Very truly yours,

E. J. GOODWIN, Secretary.

ST. LOUIS, Mo., Sept. 28, 1910.

DR. F. B. HILLER, Secretary State Board of Health, Jefferson City, Mo.

Dear Doctor Hiller:—I am in receipt of a letter from members of the State Association at _____ County, which reads as follows:

"We fully endorse your views as we read them in the last JOURNAL in regard to vital statistics, but when the country doctor is required to make birth and death certificates to an advertising Registrar, what do you think of it? We enclose a sample. This doctor is the Registrar in a township in which we do some work and the Secretary of the Board of Health is acquainted with the facts."

The advertisement of Dr. _____ referred to in the letter, is a display advertisement in the county newspaper, and stamps the doctor as an unworthy, unethical and disreputable member of the medical profession. It is certainly a most obnoxious procedure to ask decent, ethical and respectable members of the profession to make reports on vital statistics to such a person as Dr. _____ seems to be. Dr. _____ is Registrar for district No. —, and lives at _____.

I shall be glad to transmit to the doctors who are making this complaint whatever you may wish to say to me concerning the matter.

With kindest regards, believe me,

Very truly yours,

E. J. GOODWIN, Secretary.

JEFFERSON CITY, Mo., Sept. 30, 1910.

DR. E. J. GOODWIN, Secretary Missouri State Medical Association, St. Louis, Mo.

Dear Doctor:—Relative to the matter contained in your letter of the 28th inst., I will state that if formal charges are filed in this office against Dr. _____ local Registrar at _____, setting forth reasons why he should be removed, that the State Board of Health will give the matter due and proper consideration.

We do not wish unethical practitioners of medicine to represent us as local Registrars, and in all instances where this fact is shown to us, we make corrections.

So far there have been no formal charges filed against Dr. _____.

Yours truly,

FRANK B. HILLER, Secretary State Board of Health.

ST. LOUIS, Mo., Oct. 4, 1910.

DR. F. B. HILLER, Secretary State Board of Health, Jefferson City, Mo.

Dear Doctor Hiller:—I have your favor of the 30th ult., relative to the unethical character of Dr. _____, local Registrar at _____. From the contents of your favor, I gather that it will be necessary to file with the State Board of Health formal charges against Dr. _____ before your Board will take cognizance of the undesirability of such a person as Dr. _____ filling the place of local Registrar. For the information of the physicians in _____ County, and especially of those physicians in registration district No. —, composed of _____ township and _____ township, and furthermore, for the information of the entire membership of the State Medical Association, I will ask you to point out what particular section of the law providing for the registration of vital and mortality statistics should be cited in making formal charges against a Registrar who is a discredited to the medical profession, an advertising practitioner and a willful violator of the tenets that govern the conduct of the respectable element in the profession in any community. I ask this information from you, because I find nowhere in the act creating the bureau of vital statistics any clause in which a Registrar could be

tried by the Board, except for neglect to discharge the duties of his office, and, therefore, the objections held against — would not constitute sufficient grounds to lay a charge upon him before your Board.

You say the Board does not want unethical practitioners of medicine to represent it as local Registrars, and that "in all instances where this fact is shown to us we make corrections." Surely the fact has been shown to you that — is an unethical practitioner of medicine; and furthermore, the assertion is made that you have been aware of this for some time, if not at the time he was appointed as local Registrar. This being true, and you are still unable to make a correction without formal charges, it is a matter of very considerable importance that the self-respecting and ethical members of the medical profession should be informed of the situation. I think, therefore, it would be advisable for me to publish in the JOURNAL all the correspondence that has passed between us on this subject. This will serve to enlighten the members of the Association as to the proper procedure for them to pursue when some local Registrar is inflicted upon them, whose unprofessional character and unethical behavior stamp him as one who has thrown off allegiance to the principles of conduct that everyone in becoming a physician thereby vows to observe.

Yours truly,

E. J. GOODWIN, Secretary.

ST. LOUIS, Mo., Oct. 4, 1910.

DRS. — & —.

Dear Doctors:—I wrote to the Secretary of the State Board of Health in regard to the objectionable character of your local Registrar, and quoted your letter in full. In reply Dr. Hiller writes:

(Here followed the letter from Dr. Hiller under date of September 30.)

In reply I wrote as follows:

(Here followed the letter to Dr. Hiller under date of October 4.)

Very truly yours,

E. J. GOODWIN, Secretary.

JEFFERSON CITY, Mo., Oct. 4, 1910.

DR. E. J. GOODWIN, Secretary Missouri State Medical Association, St. Louis, Mo.

Dear Doctor:—It appears, from your letter just received, that you have made erroneous deductions as to what we meant in the statement contained in our letter to you of the 30th ult., wherein we said, "that if formal charges are made in this office against Dr. —, local Registrar at —, setting forth reasons why he should be removed, that the State Board would give the matter due and proper consideration."

The purpose of this statement was not to convey the idea that we desired these charges as a basis for an ordinary trial case, as you seem to think, but we simply desire a formal statement from physicians there, showing the character of Dr. — with reference to his ethical and professional conduct.

We then would have some basis from which to work. Dr. — then standing accused, would be given an opportunity to be heard in his own behalf.

This would be carrying into operation justice to all parties, and which the rules of courtesy and fair dealing concede the accused should always have.

Now, this whole complaint against Dr. — is entirely new to me. We have gone through all of our letter files this morning, beginning with the first of January, and we do not find any communications complaining against Dr. —. If such have been filed with me, I have no evidence of it, neither do I have any recollection whatever of receiving any charges.

When we made the appointment of a local Registrar for —, by consulting the Directory of the Amer-

ical Medical Association, which was just off the press, we failed to find the name of any physician, residing in —, who had membership in the State Society. Dr. —'s appointment was made upon recommendations that seemed to us good, but if it can be shown, as I said to you in a former letter, that this appointment is an improper one, I am sure that the State Board of Health will make corrections, but we must have some statement coming from the people in — and — County, who are acquainted with this physician and the conditions there, before we would feel justified in calling upon Dr. — for an explanation.

It seems that you have in your possession a display "advertisement," which the doctor has been running in some paper. Now, I believe, that either you, or the physicians about —, should furnish us with a copy of this. We are wholly unacquainted with any sort of advertising that the doctor has been engaged in, and I would feel a necessity of having all the evidence at hand in order that the matter might be clearly laid before the Board.

Relative to publishing such correspondence as has passed between you and me relative to the matter just discussed in this letter, I will say that I would be very glad to have you do this, as I think it will be clearly shown by this correspondence that the State Board of Health stands ready to recognize only the ethical and honorable in our profession.

It will also show that you have withheld from me the initial letter from the physicians in — who have made complaint to you, and that you have further withheld from me the "display advertisement" that you say is in your possession. Now, without these means of evidence, I am, of course, unable to present to the Board any charges showing a substantial basis, because the evidence, up to date, you have withheld from me.

Will you please send me a copy of the letter you received from the — physician, and also the copy of the "display advertisement," because, if I am not favored with these, I must await the filing of a complaint by physicians of — County.

Very truly yours,

FRANK B. HILLER, Secretary State Board of Health.

ST. LOUIS, Mo., Oct. 5, 1910.

DR. F. B. HILLER, Secretary State Board of Health, Jefferson City, Mo.

Dear Doctor Hiller:—Yours of the 4th inst., relative to the local Registrar at — is received. Your explanation of what you intended to convey by your statement, that formal charges should be filed with the Board, puts the matter in an entirely different light, and simplifies the procedure necessary to follow under such circumstances.

You are perfectly correct in your statement that the Board could not proceed against a local Registrar without having some complaint laid before it, and, of course, that complaint should come to you from the persons who are affected by the conditions. My letter to you, dated September 28, was a statement of the facts, and an invitation for you to point out the course of action necessary under the circumstances. In answer to this you wrote that formal charges should be filed against Dr. — before the Board could act, notwithstanding the statement of Drs. — & — that you were acquainted with the facts. Under such circumstances, my construction of your direction could not be other than what was evident in my letter to you dated October 4.

As for withholding any of the evidence from you, I informed you what it was, but I could not proceed to file all this with you until I knew whether your Board would take cognizance of it, and act upon it, remembering that you were supposed to have full knowledge of the situation. In view of the statement

that you make in yours of October 4, that you have no knowledge whatever of the objectionable character of Dr. ———, it certainly becomes necessary for the physicians in ———, who are making the complaint, to lay the matter before you officially, for, as you say, you could not, with justice to the person objected to, take action without such information.

I shall immediately request the physicians who wrote to me to take the matter up directly with you officially, or through me, just as they see fit.

I certainly think the publication of all this correspondence will enlighten the members of the Association, and stimulate their cooperation with the Board in this very important department of its work.

Very truly yours,

E. J. GOODWIN, Secretary.

ST. LOUIS, Mo., Oct. 5, 1910.

DRS. ——— & ———,

Dear Doctors:—I have this morning a letter from the Secretary of the State Board of Health, saying that all that is necessary is to file your complaint with him, together with the advertisement of ———.

I will file this complaint with him for you, if you so desire, or you can do so direct. I am merely writing to ask you which course you prefer to pursue.

I enclose a copy of the letter from Dr. Hiller for your information, but request that you reply immediately to me and tell me whether you will file the complaint yourselves or wish me to do so for you. In either event I wish you would send me a full statement of the objections you hold to ——— being retained as local Registrar. Also send me a copy of the county paper (the entire paper) containing the advertisement of ———.

Very truly yours,

E. J. GOODWIN, Secretary.

JEFFERSON, Mo., Oct. 8, 1910.

DR. E. J. GOODWIN, Secretary Missouri State Medical Association, St. Louis, Mo.

Dear Doctor:—Upon returning to my office this morning from a trip over the state covering a number of days, I find your letter of the 5th inst. I am gratified to read therein that our position relative to the matter of dealing with local Registrars who are violators of ethical and professional rules has been made clear to you.

I take this occasion to reiterate a statement that I have frequently made to you, both in conversation and by letter, that the Board of Health is desirous of working in harmony and unison with the State Medical Association, looking to the progress of the organized profession in the State.

Whenever charges of the character such as pertain to the individual concerning whom you wrote, may be filed, this Board will be glad to give the matter due attention and consideration. I hope the physicians of ——— County will, in a manner as outlined to you, place their complaints in a formal manner in our hands for submission to the State Board of Health for its action.

I will ask you to publish this letter with the others that have passed between us, dealing with the question discussed.

Very truly yours,

FRANK B. HILLER, Secretary State Board of Health.

Oct. 8, 1910.

DR. E. J. GOODWIN, St. Louis, Mo.

Dear Sir:—I send you the paper in which the ad. of the Registrar at ——— appears. Dr. Hiller wrote to the ——— Registrar (who showed me his letter), and he informed me that he had sent him the ad. I personally do not know Dr. ———, or anything about

him, as he has not been a resident of ——— County very long. It is not the man, but his advertisement that is objectionable.

Very truly yours,

P.S.—Paper sent under another cover.

ST. LOUIS, Mo., Oct. 12, 1910.

DR. ———,

Dear Doctor:—From yours of the 8th, I take it that you desire me to file the information against the Registrar at ——— with the State Board of Health. I shall take pleasure in doing this for you, because I think we ought to bring the matter to the Board's attention officially.

Is there to your knowledge a physician in ——— whose standing is correct professionally, even though he may not be a member of the county society? I wish you would let me have your reply to this question as soon as possible. If there is no physician in ——— who is ethical the Board could appoint a non-medical person of character and standing in the community, and I want the information concerning the situation as soon as I can obtain it.

Awaiting your early reply, I am,

Very sincerely yours,

E. J. GOODWIN, Secretary.

ST. LOUIS, Mo., Oct. 15, 1910.

DR. F. B. HILLER, Secretary Missouri State Board of Health, Jefferson City, Mo.

Dear Doctor:—I desire to call the attention of the Board to the unethical character of Dr. ———, Registrar at ———, district number ———, and as evidence of his unprofessional conduct I enclose a copy of the ——— for October, 1910, wherein will be found a display advertisement in which Dr. ——— announces to the public that he is a specialist in the treatment of chronic diseases, and describes certain outfits with which his office is said to be fitted for the treatment of certain diseases. Such advertising is contrary to all the principles and precedents governing the conduct of reputable physicians and ought to constitute sufficient grounds for the removal of this person from the office of Registrar and debar him from occupying any position of trust or honor within the power of the state to confer.

For your information I will say that there is at ——— at least one ethical practitioner who can furnish endorsements that ought to be entirely satisfactory to the Board of Health should you decide on making a change of Registrars at that town. If you are unable to make a choice satisfactory to yourself without my assistance I should be glad to furnish the name of this individual and of his sponsor.

Very truly yours,

E. J. GOODWIN, Secretary.

HOW THE CANDIDATES STAND

We publish more letters from candidates for Congress declaring their attitude toward the establishment of a public health department at Washington. The letters follow:

ST. LOUIS, Mo., Oct. 5, 1910.

I have favored this proposition from its incipency and shall certainly cast my vote in its favor in case of my reelection to Congress.

Yours very truly,

RICHARD BARTHOLDT.

ST. LOUIS, Oct. 7, 1910.

Can assure you of my sincere effort in behalf of such measures. I consider the sanitary purification of pol-

luted rivers and water courses of great importance.

In general your proposed enactment is along the lines of my principles and platform.

Yours truly,

JOHN PETER HUFNAGEL.

GALLATIN, Mo., Oct. 24, 1910.

To the Editor:—I state without hesitation that I am in favor of the principle of the bill, that is, I am in favor of the establishing of a national department of health.

J. W. ALEXANDER.

ST. JOSEPH, Mo., Oct. 18, 1910.

I am for anything that is just and right, and I think of my own opinion that there can be a big improvement made along this line. I am known out here as Honest John and you can bank on it that I will give you a square deal if I am elected.

Yours truly,

JOHN F. BRECKENRIDGE,

309 West Colorado avenue.

ST. LOUIS, Mo., Oct. 8, 1910.

I am in favor of such a department or bureau, and if elected to Congress from this district, will do all that I can to assist in the enactment of such a law. Such a law should be enacted, and you can count on me as one who will do all that I possibly can to help in the enactment of such a law. I believe that instead of a bureau there should be established a department presided over by a member of the Cabinet. I think a department of public health is of far more importance to the people of this country than any Department now existing which is presided over by a member of the Cabinet.

Yours very truly,

L. C. DYER.

ST. LOUIS, Mo., Oct. 10, 1910.

To the Editor:—According to your September editorial I am sending you a communication to me by Hon. L. C. Dyer, candidate for Congress from the 12th district. Trusting that this may be a link in the chain that we have long been forging.

Respectfully yours,

EDMOND BONNOT, M.D.,

Member American Medical Association.

P. S.—I have sent a copy to the Editor of the *Bulletin* of the St. Louis Medical Society.

ST. LOUIS, Mo., Oct. 8, 1910.

Dr. Edmond Bonnot,

3013a Park avenue. City.

My dear Dr. Bonnot:—Referring to the conversation we had a few days ago concerning the establishment by the Government of a Department or Bureau of Public Health, I beg to confirm what I then stated to you. I am heartily in favor of such a department or bureau, believing that it is to the best interests of the people of the whole country. Departments of the Government have been established, presided over by Members of the Cabinet, where the interests of the people are not so important as it would be in a department of public health. If I am elected to Congress from the 12th district, I shall do all that I can to assist in the establishment of such a department or bureau.

Thanking you for calling my attention to your interest in this matter, I am,

Yours very truly,

L. C. DYER.

FLAT RIVER, Mo., Oct. 3, 1910.

To the Editor:—I would vote for the establishment of a Federal Department or Bureau of Public Health.

Yours for socialism,

G. W. O'DAM.

ST. LOUIS, Mo., Oct. 4, 1910.

To the Editor:—Gladly will support any measure for public health and will vote for Bureau of Public Health.

Yours truly,

THOMAS E. KINNEY, Candidate for Congress,
12th District of Missouri.

BURLINGTON JUNCTION, Mo., Oct. 2, 1910.

To the Editor:—I have been asked through the columns of the *JOURNAL* to specify my position as to whether I was in favor of a Federal Department of Health, to which I answer, "Yes."

Yours for health,

EDWARD D. WILCOX,

Socialist Nominee for Congress, 4th District.

CLINTON, Mo., Sept. 30, 1910.

To the Editor:—I am friendly to legislation of that character (the Owen bill).

Yours very truly,

C. C. DICKINSON.

ST. LOUIS, Mo., Sept. 30, 1910.

To the Editor:—Twenty-five years ago while a country school teacher I advocated the establishment of a Department of Health at Washington, D. C., on the theory that men and women are a nation's greatest asset. I hold that the head of such a department ought to be a member of the cabinet.

Assuring you of my hearty cooperation whether elected or not, I am,

Very truly,

W. M. GODWIN.

LACLEDE, Mo., Sept. 22, 1910.

To the Editor:—If elected would certainly vote for the establishment of a Federal Department or Bureau of Public Health.

Yours,

C. F. TOBEY.

WANTS MORE POWER FOR THE STATE BOARD OF HEALTH

ST. LOUIS, Mo., Oct. 19, 1910.

To the Editor:—I enclose copy of letter to Dr. Schauffler which explains itself. The Commission and its purpose should be brought to the notice of the medical profession of the state, and this letter, if printed, may start discussion and aid in clearing the situation on public health lines.

Very truly yours,

GEORGE HOMAN, Chairman,

Missouri Commission on Tuberculosis.

(COPY)

October 18, 1910.

E. W. Schauffler, M.D.,

Vice-chairman Missouri Commission on Tuberculosis.

Argyle Building, Kansas City, Mo.

Dear Doctor Schauffler:

I have your favor of the 15th instant with enclosure, and wish to thank you for both.

Some difficulties have been encountered at this end in shaping up affairs but the work of the Commission, I think, is now well in hand and will go forward smoothly.

As a member of the Commission my purpose is to stand or fall on the proposition that first things must

come first, and that the first duty of this body is to urge that the State must provide for a thorough-going, up-to-date department of health supplied with the machinery, money and man to lead Missouri out of the sanitary darkness which experience shows has never yet been lifted. Such a department would, as a part of its duties, naturally take up whatever of value was found in the farrago you refer to, and which is mentioned above, but this form of work would, of course, be only a part of the public health problems insistently demanding attention at their hands.

Next to that for a State health department should come a recommendation asking authority for a searching medical scrutiny of all institutions supported by the State, the purpose being to find out the extent of tuberculosis among the inmates, with strict requirements for the separate care and special treatment of those found thus diseased. Whether such care could best be given in an institution built for that purpose, or in separate departments at existing institutions, is a question the future must decide.

Following this, as I see it, would come (1) the recommendation for additional sanatorium accommodations for early cases, conveniently located throughout the State, with emphasis on their function as schools of instruction in the study of how to get well and stay well; and, (2) that the State shall make provision for all advanced cases that cannot otherwise be cared for, this in the interest of public protection.

Following the above would come a recommendation that the State shall, by law, not only authorize but require that cities, communities and counties make special provision for all uncared for consumptives, in appropriate institutions with suitable professional oversight.

The recommendations, as above merely outlined, would lay a broad foundation for public health work—leaving details and minutiae to be worked out by the new health department—and would, in reason, commend themselves to the good judgment of the least well-informed member of the General Assembly as lines on which legislation and appropriation of public funds might properly proceed. I believe the Commission should avoid the mistake of attempting too much, which is a danger that cannot be ignored considering the shortness of time and means at our command.

In so far as I have sounded the opinions of other medical members I believe the foregoing represents in substance their views, and is in reasonable accordance with the later expressions of Governor Hadley.

The collection of all attainable evidence bearing on the prevalence of tuberculosis will of course go on, this to be used probably with greatest advantage before committees of the legislature in hearings given on bills introduced to carry out the views of the Governor, and resting on the matured recommendations of this body.

In conclusion, permit me to say that I shall hold myself in readiness to respond to any suggestions made by you and trust that you will not hesitate to speak freely on any and every phase of the important questions devolving on the Commission for an answer.

Believe me,

Very truly yours,

GEORGE HOMAN,

Chairman Executive Committee.

P. S.—I may, perhaps, be permitted to add that what has been said regarding the need of a State health department is in no wise intended as a reflection on any existing body, but my own experience as a member and Secretary of the State Board of Health for seven years convinced me that the name is a misnomer, and that its proper work is to examine and

license candidates for medical practice and enforce the law governing professional conduct. The two functions should be absolutely divorced. The Board has never been given either the law or money to enable it to operate effectively as a sanitary body, as that term is understood in the light of the public hygiene of to-day, with all its marvelous advances and achievements in guarding human health and life. G. H.

COUNTY SOCIETY NOTES

CASS COUNTY MEDICAL SOCIETY

Cass County Medical Society met at Harrisonville October '6, the following members being present: Drs. Crawford, Overholser, Dodd, Ramey, and Triplett. Dr. C. S. Dodd read a paper on the subject of "Goiter." This paper was of special interest to the members, and was handled in a very able manner by the author. All the members present took part in an interesting discussion of the subject.

Dr. R. D. Ramey conducted a quiz on "Anatomy of the Brain." This was a very hard subject, but the doctor was well prepared to handle it, and the members present took part promptly.

Prof. T. J. Walker, County Superintendent of Schools, was present and talked to the society relative to the "Teachers' Reading Circle." One of the adopted books of this course is "Civics and Health," by Dr. Allen. Mr. Walker asked the physicians of the county to cooperate with the teachers in the study of this book. The matter was discussed and all present expressed themselves in favor of the plan, and expressed their willingness to assist in any way possible.

The following resolution was adopted:

Resolved, That since healthful living requires the cooperation of all persons in a community; and, since the problems of health have to do so much with environment, home, street, school, public gatherings, etc., we, the members of the Cass County Medical Society, recognize this question to be one of patriotism and citizenship quite as much as one of individual well-being;

Resolved, That we commend the effort that is being made by the superintendent of county schools to bring matters of school sanitation, ventilation, lighting, heating, pure drinking water, individual drinking cups, children's diseases, etc., to the attention of the teachers through the means of the Teachers' Meetings and Reading Circles, and especially do we recommend to the teachers, the careful study of the adopted Reading Circle book, "Civics and Health;"

Resolved, That we pledge to the teachers of Cass county our hearty support in this work, and will at any time do all in our power to assist them in the study of the questions pertaining to the means of promoting public health and health conditions.

H. S. CRAWFORD, M.D., Secretary.

DAVISS COUNTY MEDICAL SOCIETY

The Daviess County Medical Society met in Jamesport, October 11, at the office of Dr. Songer. Those present were: Dr. Wetzel of Jameson, president; Drs. Hanna, Pitkin and Doolin of Gallatin, Dr. Cox of Winston, Dr. Minnick of Lock Springs, and Dr. Songer, secretary.

Dr. Hanna read an excellent paper on "Cirrhosis of the Liver"; Dr. Doolin a paper on "Whooping Cough," and Dr. Cox one on the "Treatment of Fractures of the Long Bones."

These papers were all heartily dissemssed by the members and all left the meeting feeling that they had been greatly benefited by being present.

Our next meeting will be held in Gallatin on December 13, at which time we will elect officers for the coming year. All members are requested to be present without fail, for we want to get our next year's program arranged and have it printed by the first of the year.

H. E. SONGER, M.D., Reporter.

THE GASCONADE-MARIES-OSAGE COUNTY MEDICAL SOCIETY

The Gasconade-Maries-Osage County Medical Society met at Bland on September 29. There were two sessions of the society, one in the afternoon and a night session. There were present the president, Dr. John Engelbrecht, Stonyhill; secretary, Dr. John Ferrell, Owensville; vice-president, Dr. M. E. Spurgeon, Red Bud, and Drs. J. W. Burgess, T. C. Leach, T. E. Ferrell, Frederick Auferheide, and the three home doctors, t. A. Bunge, W. R. Ferrell, and J. D. Seba.

The chair appointed Drs. W. R. Ferrell, M. E. Spurgeon and J. W. Burgess as a committee on constitutional amendments to report at the next meeting.

The secretary was instructed to correspond with the secretary of the State Association and if possible make arrangements with him to furnish the proper literature so that this society could take up postgraduate work at the sessions next year.

The society selected Bland as their next meeting place which will be on the second Thursday in November, and it was further decided that the society give a banquet at that time.

The following subjects were informally dissemssed by all the members present: "Tuberculosis," "Diphtheria," "Causes of Insanity and Sexual Neurasthenia."

After adjournment the doctors enjoyed a social supper at the Commercial Hotel.

JOHN D. SEBA, M.D.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met in the secretary's office, October 7, with the president, Dr. W. B. Kitchen of Glasgow, in the chair. Present, Drs. Hume and Thompson of Armstrong; Drs. Kitchen, Temple, Hawkins and Pritchett of Glasgow; Drs. Moore, Bonham and Watts of Fayette, and Dr. W. E. Williams of Higbee, formerly of Myers, Mo.

Subject for discussion: Anatomy, Physiology, Pathology and Injuries of the Heart. Drs. Wright, Gentle and Richards being absent, Dr. Watts gave a short talk on "Diseases and Injuries of the Heart." He said we should remember that the heart is a hollow muscle with four chambers and four doors, with valves subject to lesions, and not forget the fact that the heart is composed of eireular and longitudinal fibers covered with arteries and nerves, protected by the pericardial sac, which is also subject to lesions as grave as those of the heart. The most frequent diseases are: Hypertrophy, fatty degeneration, valvular disease, arteriosclerosis and pericarditis. He gave the treatment in brief for each lesion and the importance of a correct diagnosis. Dr. Moore reported a case of pellagra; Drs. Pritchett, Hume and Thompson one each of infantile paralysis. One member was called to time over an unethical advertisement and told not to do so any more. The society will not permit such trash from its members, who must tote fair and ethieal in all things.

Letters from Dr. Goodwin were read and THE JOURNAL complimented, as it richly deserves. Our JOURNAL is filled with home articles of great interest and the doctor who fails to read his JOURNAL will be, and ought to be, left behind.

Drs. Pritchett and Watts renewed membership and Dr. M. S. White paid dues for 1911. The secretary informed the members that election of officers would occur at the November meeting, Friday the 4th, and that all members must be present and pay up their dues for county and state, so that he could remit all state dues to the state secretary before Jan. 1, 1911. We must be prompt and in line and we must keep our place in the front rank. We have such an arrangement that it is possible for all members to do this without frietion or undue pressure or inconvenience to any. The secretary reported decks clear and ready for action.

President Kitchen is a live wire and he appointed Drs. Pritchett and Bonham to lead out on the disension of infantile paralysis at the November meeting. All cases are to be reported to Dr. Champion. The society adjourned to meet Friday, November 4. Behold, how good and pleasant and profitable it is for the professional brethren to dwell together in unity and peace. How much safer for the patron where envy, egotism and personal preference are strangers.

C. W. WATTS, M.D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY

Platte County Medical Society held one of its best and most interesting meetings at Parkville, Mo., October 5. We were royally entertained by the physicians of Parkville.

Members present: G. D. Yokum, G. C. Coffey, Spence Redman, H. M. Clark, J. H. Winter, S. P. Ford, J. Underwood, C. E. Benham and E. R. Hull. Visitors: Drs. W. F. Kuhn and Ernest Robinson, the latter a member of the State Board of Health, both of Kansas City, and the Rev. Hall Qnest of Parkville.

The program: "Rheumatism and Allied Diseases," by Dr. J. Underwood, Parkville; "Acute Inflammatory Diseases of the Kidneys," by Dr. H. M. Clark, Platte City; "Making a Man," by Dr. W. F. Kuhn of Kansas City. This paper by Dr. Kuhn was also delivered at Park College Chapel and was a very able address. "Differential Diagnosis of Hysteria and Neurasthenia," by Dr. W. F. Kuhn. All the subjects were very ably presented and we hope to have many more such meetings.

The next meeting will be held at Platte City on November 2 and the following program rendered: "Appliances for Maxillary Fractures," by Dr. A. D. Park, Platte City. Discussion opened by Dr. J. Settle, Edgerton.

"Plaster of Paris in Fractures," by Dr. J. B. Willis, Farley. Discussion opened by Dr. Alva Naylor, Platte City.

"Fractures of the Femur," by Dr. J. H. Winter, Parkville. Discussion opened by Dr. G. D. Yokum, Parkville.

"Fractures In and Around the Elbow Joint," by Dr. C. H. Chastain, Weston. Discussion opened by Dr. G. C. Coffey, Hampton.

E. R. HULL, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met at Webster Groves on October 12, at 2:30 p. m.

A letter was read from Dr. H. E. Pearse, president of the State Medical Association, regarding the establishment of a County Reading Circle composed of the teachers and physicians of St. Louis county. The book to be read is "Civies and Health" by Dr. Allen. On motion by Dr. Carter the letter of Dr. H. E. Pearse was made a special order of business for the November meeting and the county superintendent of instruction, Mr. W. T. Bender of Kirkwood, was invited to

meet with us and discuss the establishment of a County Reading Circle to study "Civics and Health."

Dr. R. Moore of Olivette reported an obscure case of a man of 70 with a fractured rib, followed by pain in the shoulder; an x-ray picture showed an enlargement of the head of the humerus but no evidence of fracture or dislocation.

Dr. H. Weyer of Kirkwood reported a clinical case of a boy aged 5 with painful ankles and elbows and an eruption of vesicles. Chemical analysis of the urine was negative but the bacteriologic examination showed a pure culture of colon bacillus. Complete and rapid recovery followed the administration of urotropin.

Dr. J. H. Armstrong reported a similar case following a hysterectomy (abdominal): colon bacillus found and patient given urotropin; uneventful recovery followed.

Dr. J. Pitman of Kirkwood reported a case of serototal hernia in a married man with an undescended testicle.

Dr. L. W. Cape of Maplewood read an interesting paper on "Infection of the Female Reproductive Organs." Discussion followed by Drs. Weyer, Pitman, Guibor, J. Armstrong, Metcalfe and Moore. Discussion closed by Dr. Cape.

Members present: Drs. Pitman, Baker, Carter, Reynolds, Metcalfe, H. Miles, J. H. Armstrong, O'Brien, Moore, Weyer, Guibor, Cape and Brossard.

P. M. BROSSARD, M.D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society held its regular meeting in Downing, at Dr. H. E. Gerwig's office, on October 11. President J. H. Kellar being absent, Vice-President A. J. Graves filled the chair. Members present: Drs. W. H. Justice, Potter, Drake, E. L. Mitchell, W. B. Hight, J. B. Bridges and H. E. Gerwig.

Dr. W. B. Potter made application for membership in the society which was laid over until our next regular meeting in January, 1911, that being the time to collect our annual dues.

Dr. J. B. Bridges read a very able paper on "Abcesses," which was discussed by all present.

Meeting adjourned to meet in Lancaster Jan. 5, 1911. H. E. GERWIG, M.D., Secretary.

ST. LOUIS MEDICAL SOCIETY

MEETING OF OCTOBER 8

This session was in charge of the medical section. The papers were:

"Primary Carcinoma of the Appendix. Report of a Case," by Dr. Max Myer.

"Demonstration of Skiagrams of Unusual Pulmonary Diseases," by Dr. William Engelbach.

MEETING OF OCTOBER 15

This meeting was held under the auspices of the section on obstetrics and gynecology.

Dr. John Mell, Dean presented an interesting specimen of fibroid of the uterus.

The papers of the evening were:

"A Stone in the Ureter Removed Through the Bladder Under Guidance of the Cystoscope," by Dr. George Gellhorn.

"Carcinoma of the Endocervix. Report of Case," by Dr. Mary H. McLean and Dr. Ella Marx. Discussion opened by Dr. Fred J. Taussig.

MEETING OF OCTOBER 22

This session of the society was conducted by the surgical section and was devoted to reports of cases and presentation of pathologic specimens. The program follows:

"Report of a Case of Double Congenital Hernia: Strangulation; Operation; Recovery; Strangulation; Second Operation; Recovery," by Dr. A. R. Kieffer. "Report of a Case of Extensive Crush Injury of the Hand; Recovery; Presentation of Patient," by Dr. Roland Hill. "Presentation of Interesting Specimens," by Dr. C. M. Nicholson. "Presentation of Interesting Specimens," by Dr. C. C. Morris. "A Brief Report of an Unusual Foreign Body in the Rectum, with X-Ray Picture," by Dr. Louis Rassinier. "Presentation of a Specimen of Osteosarcoma of the Inferior Maxilla," by Dr. E. A. Babler.

MEETING OF OCTOBER 26

The Oto-Laryngological Section held its meeting on this evening for which the program consisted of the following papers:

"Nasal Polypus of Unusual Size; Presentation of Patient and Specimen," by Dr. C. F. Pfingsten. "Removal of a Piece of Peanut from the Right Bronchus; Presentation of Specimen," by Dr. W. E. Sauer. "The Galvanocautery Operation for the Lower Turbinate," by Dr. Greenfield Sluder.

CATALOGUE ST. LOUIS MEDICAL LIBRARY 3525 Pine Street

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To be Continued.

BOOK REVIEWS

ANNOUNCEMENT

The fall announcement of Rebman Company, 1123 Broadway, New York, Publishers, contains descriptions of new works of great interest to the practicing physician.

We note specially the following very important books on topics that are uppermost in the mind of the profession at the present time: "The '606' Ehrlich-Hata," in active preparation; "The Modern Treatment of Alco-

holism and Drug Narcotism," by McBride; "The Mental Symptoms of Brain Diseases," by Hollander; "The Phase of Evolution and Heredity," by Berry-Hart. Rebman Company also carry in stock a large number of German books and a line of art prints—pictures by famous artists depicting scenes of medical interest—useful for framing and hanging in waiting rooms and offices. The full catalogue and descriptive circulars will be mailed to anyone on request.

SPONDYLOTHETAPY. By Albert Abrams, A.M., M.D. (University of Heidelberg.) Published by Philopolis Press, San Francisco.

This is a most excellent work by one of our foremost authors, on a subject that is full of great possibilities but which has been sadly neglected by the profession as a whole, much to our loss. To one who has not made a special study of the nervous system this work will prove a revelation. The utilization of the effect of the vertebral reflexes on the musculature and the structure of the various organs of the human body make a strong appeal to the reader. The author cites a number of cases in which an application of his principle has wrought remarkable results.

THE HISTORY OF MEDICINE. By David Allyn Gorton, M.D.

David Allyn Gorton, M.D., has presented in the two volumes that compose "The History of Medicine," to be published this November by the Putnams, the results of his studies in and observations of medical science, history, and philosophy, during a half century of active professional life. Medicine and philosophy he has found to be indissolubly one and inseparable. He insists that it is only through a knowledge of the medical sciences that the data for a well-grounded philosophy of Being can be formulated, and a proper understanding of the origin and development of man, his ethical relations to his fellows, to Nature, and the Divine Supremacy in Nature, unfolded; that we must seek in the physiology and pathology of brain and mind for an illumination of the problems of life and its relations to the Divine Supremacy in Nature.

BIOGRAPHIC CLINICS. Vol. VI. Influence of Visual Function Upon Health. By George Gould, M.D. Published by P. Blakiston's Son & Co.: Philadelphia.

This book consists of a series of reports of cases, of migraine, epilepsy, neurasthenia and kindred diseases, caused, as the author states, by eye strain. In addition to the reports there are various comments and statements, setting forth the author's views and theories regarding these diseases, their causes, effects and treatment. The author is a well-known writer and most of the chapters included in the volume have already been published in various medical journals in recent years.

The theories and statements of the author are set forth in a clear and vigorous manner, and backed up by an array of facts and figures that would seem to prove them beyond question. While we believe that the pernicious effects of eye strain have been and are to a great extent overlooked or entirely ignored by the general practitioner, yet we predict that the views and statements of this author will be pronounced radically extreme by many progressive members of the medical profession. It is almost impossible to exaggerate the evil effects of eye strain, especially upon that class of patients known as neurotic, yet we must recognize the fact that there are other causes of disease than eye strain.

The book is timely and we commend it to the profession as one well calculated to call attention in an emphatic way to this much neglected cause of disease.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3523 PINE STREET, ST. LOUIS, MO.

Volume VII

DECEMBER, 1910

Number 6

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION COMMITTEE { M. B. CLOPTON, M.D. Chairman
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ORIGINAL ARTICLES

THE CLINICAL RECOGNITION OF THE SCAPHOID TYPE OF SCAPULA AND OF SOME OF ITS CORRELATIONS*

WILLIAM W. GRAVES, M.D.

ST. LOUIS

In my communication, "The Scaphoid Scapula, a Frequent Anomaly in Development of Hereditary, Clinical and Anatomic Significance,"¹ presented to the St. Louis Medical Society, Feb. 5, 1910, I indicated the relative frequency of the scaphoid type of scapula in our population in dry bones and in fetal, embryo and monster forms. The main thesis of that communication was: The scaphoid scapula is an anomaly in development originating in the progeny from some abnormal circumstance operating in the parents, is thereafter transmitted from parent to child, and so on through several generations, and unless the abnormal circumstance again becomes operative in the descendants, the scaphoid scapula finally disappears and the racial type again becomes dominant.

I showed that it occurred most frequently in individuals deviating from the average in physical or mental endowments, or both, and stated that the natural habitat of the scaphoid scapula was in the deviate. I showed further that in individuals of the second generation in whose parents a definite abnormal circumstance—syphilis—had operated, the scaphoid type of scapula was correlated with certain conditions, such as nocturnal incontinence; with certain physical signs, such as catarrhal affections, adenoids, an abnormal degree of lymph-gland palpability, and above all, with vasculosclerotic changes occurring very early in life; in some detectable by the ordi-

nary methods of clinical investigation as early as the fourth, and as a rule as early as the tenth, year of life; and in older individuals a degree of arteriosclerosis out of all proportion to their years. Even in individuals of the third and fourth generations, the last-mentioned correlations, amounting almost to parallelisms, will be frequently found. It is to the clinical recognition of the scaphoid type of scapula and of the correlations just mentioned, and to the recognition of others in the living subjects, that I desire at this time to direct attention, since the appreciation of certain of these correlations is fundamental in the study of the causation of the scaphoid type of scapula and in the consideration of the many weighty and intricate problems that appear to the intimately associated with it.

The recognition of the scaphoid type of scapula in the living subject will not be found difficult if one remembers its characteristics as shown by my studies of dry bones, embryonal and fetal forms. Of these characteristics the following are usually readily discernible in the living subject: first, the vertebral border below the scapular spine is more or less concave; this may be almost or quite straight, slightly or distinctly concave; second, the scapular index is as a rule less; that is, the bone is longer in proportion to its breadth than in the average type (this may be roughly estimated in the living subject by noting the proportion between length and width of the body of the bone); third, the vertebral border in the scaphoid type more nearly parallels the long scapular axis and a straight line than in the average type of scapula; fourth, as a rule, the spine in the scaphoid type forms more nearly a right angle with the long scapular axis than does the spine of the average type; fifth, the vertebral border buds, tuberosities, varying in size and number, are much more common in the scaphoid, especially in those nearer straight, than in the average type of scapula; sixth, in the same subject having scapulæ of the scaphoid type, differ-

* Read in the General Session, Missouri State Medical Association, Hannibal, May, 1910.

1. Med. Rec., May 21, 1910, p. 861.

ences in size and form and specific differences in the contour of the vertebral borders are common.

Only in exceptionally thin individuals may one determine the other characteristic of the scaphoid type of scapula previously described; namely, the constant absence of lips and intermediary surface in those scapulæ which have marked concavity of the vertebral borders. Two or more characteristics will invariably be found in those individuals having the scaphoid type of scapula and these may usually be determined by inspection and palpation. In individuals who

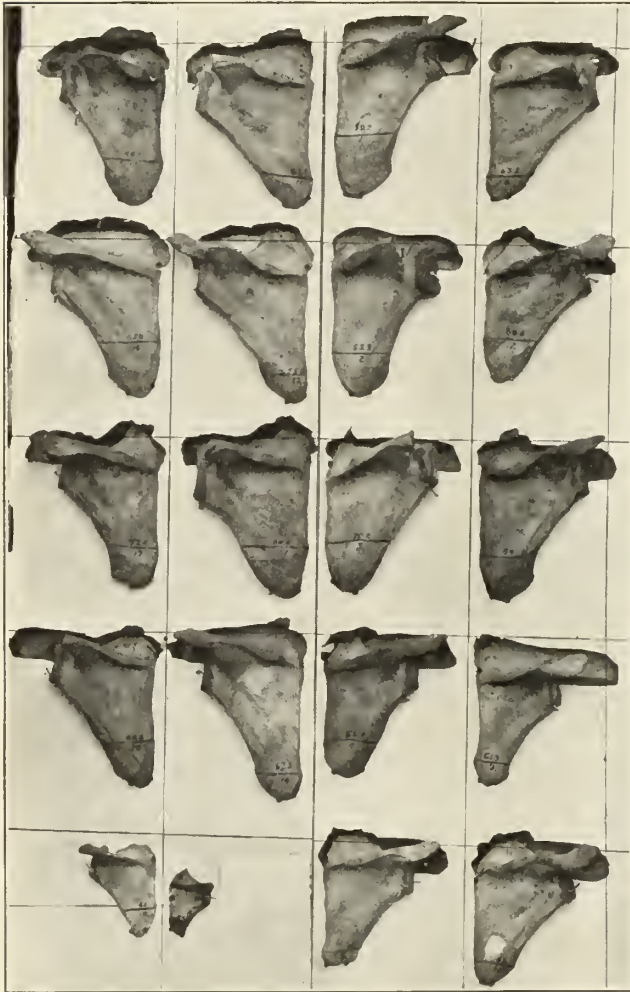


Fig. 1.—A group of scapulae of the scaphoid type, all having rather decided incurvations of their vertebral borders.

are exceptionally muscular or obese, the x-ray may supplement inspection and palpation, an expedient I have not thus far found necessary.

As a matter of course all clothing must be removed, at least to the hips, and the patient should assume his natural attitude, standing several feet in front of the examiner in good illumination. To appreciate natural attitudes fully, the patient should be inspected from the front, laterally, and

from the rear, during which the shape of the chest, the abdomen, the course of the clavicles, the length of the neck, the muscular development, the spinal curves, etc., are studied. Then by examination of the scapular region, in average individuals the upward and outward slant of the scapular spines, the graceful downward and outward curves of the vertebral borders beneath the fibres of the trapezii and the underlying mass of the rhomboids attached to these borders may be made out easily. The course of the long scapular axis may thus be readily determined to be downward and outward, so that the bases of the scapular spines will be found to be from 2 to 6 cm. nearer the spinal axis than are the inferior angles.

In individuals having the scaphoid type of scapula, the picture is completely changed. The chest is frequently narrowed in all diameters, especially anteroposteriorly. There is often a narrow costosternal angle and floating tenth ribs; the clavicles very frequently take rather a horizontal course increasing the dimensions of the supraclavicular regions, and there is often undue prominence of the acromioclavicular articulation. The shoulders hang, drooping downward and forward. The vertebral borders stand out prominently, wing-like, and especially that portion of the borders merging into the inferior angles. There is paralleling of these borders with each other and of these with the spinal axis, so that the distance between the inferior angles of the scapulæ and the bases of their spines is nearer equal, and in some instances the bases of the spines are further away from the spinal axis than the inferior angles of the bones. In many instances, even when the individual is caused to approximate the vertebral borders of his scapulæ by drawing the shoulders directly backward, the phenomena just described will still be apparent, though to a somewhat less degree. The sluggish attitudes of such individuals, especially of the shoulder regions, the frequent lowering of one shoulder and usually on that side where the scaphoid type of scapula is most marked, the changed relations of the vertebral borders with each other and of these with the spinal axis, have their foundation in the anatomic characteristics of this type of scapula mentioned above.

In individuals having average scapulæ, marked differences between them in the same individual will rarely be found; but this is so frequent in the scaphoid type of the scapula that it must be considered as one of its chief characteristics. Marked differences will be noticed not only in the contour of the vertebral borders, but in some cases in the breadth and length as well. The differences in size, and especially the differences in contour of the vertebral borders, should also be considered in determining the presence of the scaphoid type of scapula. In the cases in which the difference is quite decided, causing the lowering of the shoulder on the side where the scaphoid

type is most marked, lateral curvature of the spine is not infrequent. In some individuals who have acquired better attitudes of their shoulder regions an accentuation of the anterior curve in the dorsolumbar region occurs.

In thin individuals having the scaphoid type of scapula, the hollowing out of the vertebral borders may be readily appreciated merely by inspection. But to appreciate this better and the degree of it in each scapula, to appreciate the shapes of the bones as well as the presence of the vertebral border buds, palpation of the scapula should not be neglected. The marked differences of shape and size of the scapula, as well as the degree of concavity of their vertebral borders and the number and size of the vertebral border buds, may be well appreciated in the living subject; but to facilitate this study, I reproduce here three series of bones illustrating the anatomic characteristics found in my studies of dry bones (Figs. 1, 2 and 3).

Before considering the clinical recognition of some of the correlations of the scaphoid type of scapula and the better to appreciate these, it will be well for the moment to direct our attention to the individuals in whom these are associated, and then by looking at a composite picture of such individuals to study the correlations at closer range. Confining our studies in the beginning to the individuals in whose parents an abnormal circumstance—syphilis—has operated, we shall find that such individuals, as previously pointed out, are of retrograding, deviating types. In any one of these, when compared with either parent or with his cousins, his uncles and aunts or with the average members of the community in whose parents the abnormal circumstance has not operated, deviation will be found in the physical or mental development, and usually in both. Among such progeny will be found many of the heretofore recognized anatomic, physiologic, psychic and psychoneurotic stigmata which I shall not here particularize.

In only a few instances have I thus far found the well-marked scaphoid type of scapula in individuals even approaching average development. Such individuals are usually undersized, have sluggish attitudes, meager musculature and are strikingly lacking in the harmonies of physical development. They range in stature from dwarfs to giants, but whether the one or the other, or merely undersized, disharmony characterizes their physical development. Many of them, apparently physically normal at birth, in their later development show retardation or grow by fits and starts until near, either before or after, the usual age of puberty, they shoot up like weeds or forever remain stunted—blighted.

With the beginning of mental development such progeny are either backward and remain so, or they show—and this is the rule—precocity. If

disharmony characterizes their physical development, it is especially true of their mental development. They have no childhood. They seem almost to jump from the cradle to adolescence. "My children are old in their ways" is a frequent expression of certain observing mothers, and they may add "They are almost always ailing." Or the unobserving mothers (and ignorance and mother-love and pride make them so) may proudly say "My children are all healthy." Indeed, physicians usually consider such children

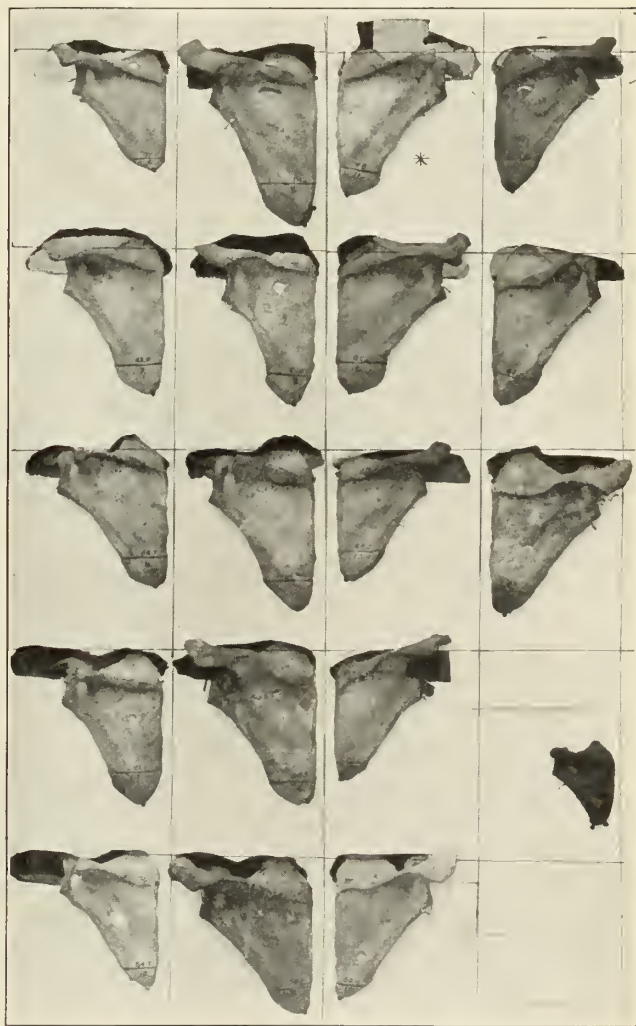


Fig. 2.—A group of scapulae of the scaphoid type, all having more or less straight vertebral borders except the one with a star next it, whose border is slightly convex—a border-line scapula.

healthy, or at least free from syphilitic blight, in the absence of "snuffles," eruptions of the skin and mucous surfaces, bone and joint affections, Hutchinson's teeth, interstitial keratitis, and deafness without otitis. Children of the second generation are as a rule rarely healthy; but to appreciate the truth of these assertions we must, as physicians, study the individuals of families

rather than the histories of individuals of families.

While idiocy, imbecility and backwardness in mental development are relatively frequent in the second generation, such mental states are by no means common. My studies of the offspring in whom an abnormal circumstance—syphilis—in the parents is beyond question, show precocious mental development to be the rule. Not only do such children appear like little old men and women in the seriousness of their ways and actions, their preference for books rather than play,

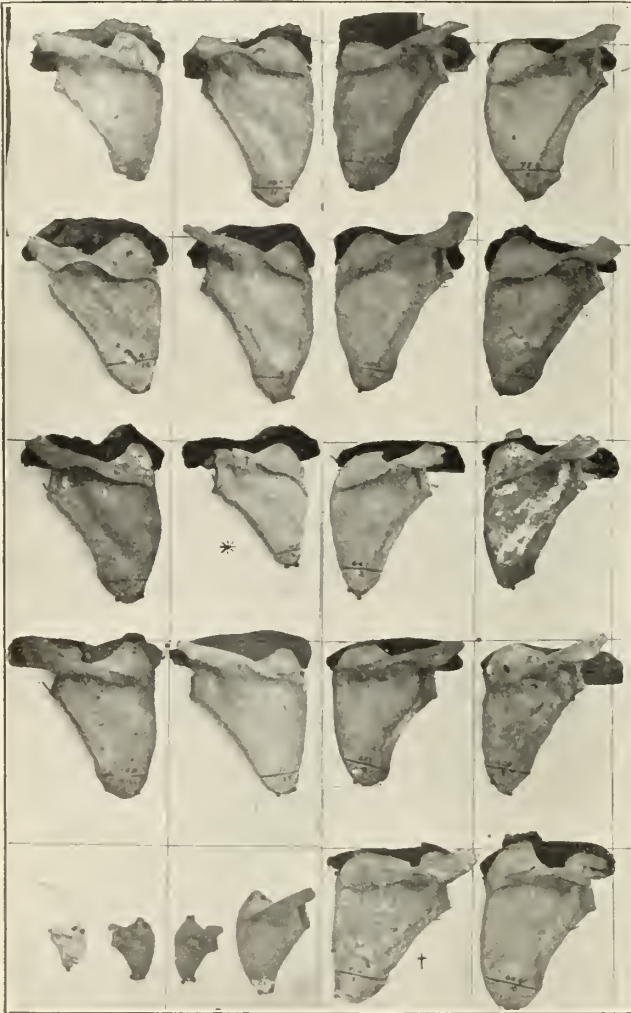


Fig. 3.—A group of average scapulae, the dominant racial type, excepting the one with a star and that with a dagger near, these being border-line scapulae but nearing the average type.

and the society of their seniors rather than their kin; but as individuals, their facial expression is lacking in the freshness of infancy, childhood or youth and they ever afterward appear much older than their years.

Many of them develop sexual instincts long before puberty, and these are often gratified by masturbation, sexual intercourse, or otherwise.

Strenuosity and intensity characterize many of these individuals, and before or during adolescence such mental proclivities, associated with the inherently weak condition, sooner or later lead to an inevitable "break," and they make up a large percentage of the cases commonly classified as neurasthenia, hysteria and dementia præcox. Many cases of epilepsy developing in early or later periods of life are to be found in the individuals of the second and later generations. The incorrigible and so-called criminal classes are increased from the ranks of the second and later generations in a degree probably unequaled by that of any other source. Not a few individuals of the second generation, and many of the later generations, despite their handicap in physical and mental endowments, by learning to adjust themselves to their environment, lead successful, useful and even brilliant lives, though they rarely live out their expectancy in consequence of their abiotic natures.

If the antenatal mortality of syphilitic progeny is so great, it is but reasonable to believe that the influences underlying it are still operative in the living; if not the disease itself, its blighting influences as manifested by disharmony in physical or mental development, or both by inability to stand the stress and strain of ordinary existence, by degenerative and involutional changes, and by lowered general resistance. Such progeny are truly abiotic; hence the instability of their natures, their proneness to so-called functional disturbances and to disease, to degenerative and involutional changes, to neuroses, psychoneuroses, psychoses, and above all, to tuberculosis.

In my studies of the scaphoid type of scapula and its correlations² I have been greatly impressed by the unusual frequency of tuberculosis in such progeny and in the progeny of later generations. This is not the place to dwell on the ramifications of the scaphoid type of scapula and some of its correlations in general and special pathology, but it seems proper to mention here the abiotrophies of Gowers, the neuroses and psychoneuroses and especially epilepsy, dementia præcox and tuberculosis, since my studies have shown the unusually frequent association with these conditions.

Nocturnal incontinence is relatively frequent in individuals having the scaphoid type of scapula and other correlations. It was present in about 16 per cent. of fifty boys, inmates of St. Joseph's Orphan Asylum, studied in a preliminary way, and it is such a very common condition in the second generation that it may well be considered one of the correlations of the scaphoid

2. In a paper soon to appear, prepared in collaboration by Dr. O. H. Brown and myself, we shall show the frequent association of tuberculosis with the scaphoid type of scapula and some of its correlations.

type of scapula. Fuchs³ and Mattauschek,⁴ in studying enuresis nocturna in adults, have shown in their cases anomalies of skin and tendon reflexes, slight sensory changes about the feet, syndactylism, deformity of the feet (pes planus, varus and valgus, etc.), the frequent association of the patency of the sacral canal in all degrees from spina bifida to the slightest changes in the form and location of the sacral hiatus, the latter demonstrable only by the x-ray.

These findings caused Fuchs to assume an actual defect of development (myelodysplasia), meaning thereby an anomalous development about the lower part of the spinal cord. Fuchs has correlated the assumed myelodysplasia with distinct anatomic anomalies, and I have correlated similar anomalies with the scaphoid type of scapula.

The histories of catarrhal affections, tonsillitis, bronchitis, gastro-intestinal disturbance and adenoids are unusually frequent in individuals of the second and later generations.

Of the boys studied in St. Joseph's Orphan Asylum having the scaphoid type of scapula and some of its correlations, about 60 per cent. are mouth-breathers. In a family of five children of the second generation, recently referred to Dr. R. P. Scholz, adenoids were found in all, and in four to a degree requiring operation. In a group of ten backward public school children studied with Dr. Scholz, having adenoids and mentioned in my first communication, all had the scaphoid type of scapula and other correlations. Since then Dr. Scholz has kept a careful record of those operated on by himself for adenoids, and in a recent conversation he informed me that fully 75 per cent. of them have the scaphoid type of scapula and some of its correlations. Adenoids, therefore, appear to be a very frequent correlation of the scaphoid type of scapula. The "adenoid face," consisting in a dull, vacant expression, dry and separated lips, poorly developed nostrils, etc., discerned by visual or digital examination, or both, renders the recognition of adenoids an easy matter.

A more frequent correlation is undue lymph-gland palpability, and this is so frequent that it is well-nigh constant. Enlarged anterior cervical glands are an almost constant accompaniment of adenoids, but the postcervicals, epitrochlears, and those above and below Poupart's ligament are those more easily palpable and those less frequently involved from the peripheral infections; but even these enlarged from peripheral infections, the postcervicals from infections of the posterior portion of the scalp, the epitrochlears from infections of the more distal parts, and the in-

guinals above Poupart's ligament from infections, about the genitalia and below, of the distal parts of the extremities. In any case, the history or the presence of such infection, and above all the equal enlargement whether or not the enlargement is peculiar to the individual or due to some peripheral infection.

Pupillary anomalies, consisting of asymmetries and differences in size, are so common in individuals of the second generation as to rank as frequent correlations. Such findings should be considered only when neither iritis nor iridocyclitis causing synechia has existed, points readily deter-



Fig. 4.—A method of finger-tip palpation of the radial artery.



Fig. 5.—Another method of finger-tip palpation of the radial artery.

mined by the history and inspection. In searching for pupillary anomalies, it must be remembered that clumpy distribution of pigment along the pupillary margin ("Ektropium des Pigment-Blattes der Iris"—Bach⁵) may cause a perfectly symmetrical pupil to appear flattened, oblong or cornered. The examination by focal light may readily exclude this condition. The Argyll-Robertson pupil with an otherwise intact nervous system is relatively infrequent in the second gen-

3. Fuchs, Alfred: Ueber den klinischen Nachweis kongenitaler Defektbildung in den unteren Rückenmarkabschnitten ("Myelodysplasie"), *Wien. med. Wchnschr.*, 1909, Nos. 37-38.

4. Mattauschek, Emil: Ueber Enurisis, *Wien. med. Wchnschr.*, 1909, No. 37.

5. Bach, Ludwig: *Die Pupillinlehre*, 1908.

eration, though almost invariably associated with the scaphoid type of scapula and other correlations when present. The same may be said of Hutchinson's teeth, interstitial keratitis, deafness without otitis, hypotonia of certain muscle groups, absent knee-jerks and the usual signs of congenital lues heretofore recognized. Juvenile paresis and tabes are almost invariably associated with the scaphoid type of scapula and its chief correlations, and in my first communication I pointed out the frequency of this association with syphilis of the nervous system, with acquired tabes, paresis and other abiotrophies of Gowers.

In my studies of senility, of the later manifestations of acquired lues, and of individuals having the scaphoid type of scapula, I have been impressed with the peculiar appearance of the conjunctivæ over the sclerotics, which I have noted in my findings as "varnished scleræ." The varnished sclera is present as a rule in healthy individuals as early as the thirty-fifth or fortieth year of life and it increases with succeeding years. Its chief characteristic is a shiny, glistening appearance on a rather undulating, and in older individuals, a slightly yellowish background, so that the surface of the conjunctiva lying on the whitish sclerotic glistens like the cornea. In individuals free from senile changes the surface of the conjunctiva has a more smooth and less shiny appearance—is even dull when compared with the surface of the cornea; so that in such persons there is a distinct contrast between the brilliancy of the surface of the cornea and that of the conjunctiva on the bluish-white background of the sclera. The lack of contrast, on the other hand, is probably one reason for the expressionless eyes of tabetics and paretics and the main reason for the "settled look" in the healthiest of us after the thirty-fifth year of life. The undulating appearance is probably due to wasting of the episcleral or subconjunctival tissue and to the thickening of the conjunctival vessels, and, in addition, in older individuals, to wasting of the conjunctivæ analogous to that of other mucous surfaces and the skin in senility. The presence or absence of "varnished scleræ" may be readily determined on drawing down the lower lids when the patient is facing the light and directing his gaze somewhat upward. In such position we may readily appreciate the appearance of the conjunctiva if varnished, its tints, its undulations, and lastly, the undue tortuosity of the conjunctival vessels—a sign usually associated with and paralleling it. When the "varnished" appearance is well marked the tortuous vessels seem to lie, rather, on than within the conjunctival tissue. Punctate hemorrhages into the conjunctival and even into episcleral tissues will frequently be found associated with the signs just mentioned.

Aside from the chief correlation of the scaphoid type of scapula, namely, the characteristics of the individual, probably the most constant, and to

my mind the next in importance, is the correlation of vasculosclerotic changes at an unusual period of life and in older persons out of all proportion to their years. The varnished scleræ and the undue tortuosity of conjunctival vessels are probably due mainly to vasculosclerotic changes of the conjunctival vessels. The study of these vessels with Luedde's modification of the Zapski binocular corneal microscope, as previously pointed out, appears to offer a ready means of detecting the presence of vasculosclerotic changes, from whatever cause, long before they might otherwise be recognized in the living subject. At any rate this instrument offers additional means of securing corroborative evidence—and it is impossible to have too much of this. With this instrument one may readily see the blood coursing through the conjunctival vessels and discern thickening, crinkling and aneurismal dilations of their walls.

In certain congenital deformities correlated with the scaphoid type of scapula, studied jointly by Drs. Luedde and V. P. Blair, evidence of such changes have been found in the conjunctival vessels of nursing infants. By the ordinary methods of clinical investigation, as previously pointed out, I have found evidence of vasculosclerotic changes as early as the fourth, and almost constantly as early as the tenth year of life in individuals of the second generation. A number of these, studied by me, have also been studied by Dr. Luedde and in no instance has he failed by studying the conjunctival vessels to find evidence of vascular changes. The almost constancy of vasculosclerotic changes in individuals of the second generation and our ability to detect them so early in life warrant the deduction that such changes begin during development *in utero*—in other words, the children are born with a degree of arteriosclerosis.

Clinical evidence of arteriosclerosis in the living subject is considered ample when two or more of the following findings are demonstrable: undue palpability of radial and other vessels, visible pulsation in the brachials, undue tortuosity in these, the temporals, and other vessels, including the conjunctival vessels, undue accentuation of the second aortic sound and the determination of the functional worth of the heart muscle. To these must be added an estimation of arterial tension with a suitable apparatus, though alone it is of but little value in determining the presence of arteriosclerosis.

A detailed description of the methods usually employed in studying the cardiovascular apparatus would be superfluous here. But the palpation of vessels is such an important procedure in determining the presence of arterial thickening that I may be pardoned for calling attention to the necessity of accuracy in technic, even in the frequent and time-honored practice of feeling the pulse.

Not only the radial, but the brachial, temporal, posterior tibial and dorsalis pedis, should be palpated and compared, right and left, in our search for vascular changes. Sahli's three-finger method is invaluable in estimating the qualities, tension, etc., of arteries; but in determining sclerotic changes in them it is not to be recommended, because sensation coming in from three fingers is more dispersed than when only from one. In order to determine the sclerotic changes, one should employ, as a rule, one, never more than two, fingers, and two only in cases in which the tension is so great as to interfere with firm palpation with one finger. In counting the pulse, it matters little whether one feels with one's finger-ball or one's finger-tip; but in feeling—in palpating—the vessel-wall with only the ball early and even decided changes may be entirely overlooked. One should, therefore, use the finger-tip in palpating arteries, because the tip is more sensitive than the ball, has less subcutaneous tissue, and more readily adjusts itself to the vessel.⁶ The tip of the finger should be placed perpendicularly to the vessel at first lightly, to become aware of pulsation, then with gradually increasing pressure one should roll or attempt to roll the vessel. A moderate-sized artery, such as the temporal or radial when not thickened, is felt to collapse under the increasing pressure and it is with difficulty differentiated from adjacent structures.

When such a vessel is thickened—sclerosed—the wall remains more round, the finger-tip glides over its rounded surface, and one feels a degree of rigidity not present in normal arteries. Sclerosing arteries are frequently unduly tender to firm finger-tip pressure, more so than adjacent structures, the unpleasant sensation persisting at times for several minutes after the pressure has been removed, a point frequently mentioned by patients. As the finger-tip has less subcutaneous tissue than its ball (one reason why it should be employed), it is evident that its applied pressure should be a point along the course of a given artery where it lies directly over bone and free from overlying muscle. Figures 4 and 5 represent two methods of finger-tip palpation of the radial artery.

In my first communication, I referred to vasculosclerotic changes as a sort of connecting thread between the syphilitic and his progeny. In my studies of many individuals and families on which that and this communication are based, a degree of such changes out of all proportion to the years is the one preeminent clinical fact dis-

cernible in the individual who has acquired syphilis, and it is the one significant clinical fact discernible in his children and his children's children. It is, probably, the main cause of the frightful antenatal and postnatal mortality among such progeny; probably the main cause of their lessened expectancy in life; of their proneness to disease—to degenerative and involuntal changes; to the so-called functional nervous disorders and the underlying cause of tuberculosis in them—for is not the blood the life thereof?

Admitting vasculosclerotic changes to be even a frequent correlation of the scaphoid type of scapula, is it not incumbent on us to search for and establish its cause and that of its other correlations? My studies, extending over a period of more than three and a half years, indicate far-reaching ramifications of the scaphoid type of scapula and its correlations—a rather definite syndrome in both general and special pathology. The frequency of what may be called the scaphoid type of scapula syndrome in our population, occurring in all branches of society, seems to postulate a single cause and one sufficiently potent to modify profoundly the growing organism from its very foundations. Thus far I have found no other cause than syphilis in the ascendants, but my studies have been too brief and too incomplete to enable anyone to draw definite conclusions from them and apply them to every individual in whom this syndrome may be found. This seems certain, however: nothing occurring in the life of an individual after his birth can give him the scaphoid type of scapula and its correlations.

Before one may determine the significance of this syndrome in any individual, the individual must be studied from every angle and in a comparative way with the members of his own family and with average members of his community. With the use of modern refinements in clinical investigation; with the use of laboratory methods, merely to confirm and to control clinical deductions; with patient study of individuals and of the individuals of families rather than the histories of individuals of families on the part of many workers, the ultimate cause or causes, as well as the hereditary, clinical and pathologic significance of the scaphoid type of scapula and its correlations may readily be determined.

My studies thus far warrant my saying at this time that such research on the part of many workers will undoubtedly lead to more complete recognition of syphilis and of its blighting influence in the individual affected, in his children, and in his children's children. Out of such recognition, let us hope a sane prophylaxis may be developed, whereby much suffering which now comes to humanity from this insidious enemy of the human race may in succeeding generations pass away from the earth forever.

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6. Wertheim-Salomonsen (Die Nagelpalpation der Arterienwand, Salomonson, Deutsch. Arch. f. klin. Med., 1910, xcvi, Nos. 4-6; abstr. in the *Journal A. M. A.*, April 16, 1910, p. 1345) has recently called attention to the value of finger-nail palpation of arterial walls and emphasizes the point that the nail should be placed perpendicularly to the skin, thus calling into play the entire innervation of the nail-bed. Whether the "nail" is more sensitive than the "tip" is questionable. Nevertheless the method seems valuable and should be employed.

DISCUSSION

DR. ROY PH. SCHOLZ, St. Louis: Since Dr. Graves called my attention to scaphoid scapula, some eight months ago, as being a type found in blighted individuals, I have been examining my patients trying to determine the frequency of its occurrence. In the type of individuals seen by me both in private practice and hospital work, I have found scapulae with concave vertebral borders in almost the majority of cases. Just as are in the cases of these young boys presented this evening, so most of my cases were mouth-breathers. It seems to me that most individuals subject to disease of the upper respiratory tract, come from the class described by Dr. Graves as blighted. My examination for this form of scapula has not been confined to the sick alone, and even among those looked on as perfectly normal, scaphoid scapula is frequent. Some months ago I was given charge of the nose, throat and ear work at the Christian Orphan Home of this city. When I began my work an attendant determined, from casual examination, that two-thirds of the children were mouth-breathers and about one-third had running ears. In this home, as is the rule in all such homes for unfortunate children, were found many deficient physically. Each child was carefully studied and I was surprised to find disease of the nose (adenoids, etc.) usually associated with the scaphoid type of scapula together with varnished sclera and arteriosclerosis. Thus far I have found but one child with markedly concave vertebral borders of the scapula with a nose free from pathologic change. What conclusions may be drawn from this as to the etiologic factor in adenoids and scaphoid scapula I am unable to say, but it is clear in my mind that adenoids occur in the majority of blighted children as stated by the essayist.

DR. JOSEPH GRINDON, St. Louis: Whatever opinion I may express will be only in a tentative way, for, while Dr. Graves has studied this subject for three and a half years, my attention was only called to it by him about three months ago, so I am a mere apprentice on this very interesting subject. Since then, however, I have done my best to observe what I could. In my clinic at the Washington University I have an opportunity to see many hereditary syphilis as well as individuals who are in one way or another biotrophic, among many of which groups I have found the scaphoid scapula. My conclusions would be something like this: I feel that Dr. Graves has rendered a great service in pointing out something that was before our eyes and that we did not see. If it showed only one characteristic it would perhaps be only an interesting observation, but when we can correlate with it a second and a third and a fourth, a fifth and sixth characteristic, the chances of its meaning something definite are raised to the sixth power. But whether we can deduce from that that the combination is due to one particular cause, or that one particular factor is dominant in its causation, is not particularly clear to my mind. It seems to me that this peculiarity simply means arrested development and may come from a wide variety of causes, e. g., tuberculosis, rickets, etc. I have under observation several families in which I know that the father and mother have had syphilis. I see in the children born early marked scaphoid scapulae, while in the younger children they are not so marked. Again, I see the scaphoid scapula in other individuals in whom I can make out absolutely no evidence of inherited syphilis. I do not mean only absence of the gross lesions familiar to any medical student, such as the Hutchinsonian triad, but I so far have failed in many cases to recognize the existence of the finer changes. Of course, if you are going to say that adenoids, a high palate, abnormal teeth

and so on, are all characteristic of syphilis, then you beg the whole question.

DR. FRANK R. FRY, St. Louis: The bony correlations elsewhere in the skeleton would be natural and most interesting. We can understand why the scapula would show this taint in a more pronounced way than any other bone. It is a large bone with numerous muscular attachments. If this bone does show a deviation so marked from lues it must show in other bones, the deviations, however, in the latter not being so marked. We might examine the patella, for instance. I think it will take a long while before we can truly estimate the extensive observations Dr. Graves has recorded. In the nature of things this must be so.

Concerning the Wassermann it will be of much help to us as a body. It will help us to get together and understand each other and thereby broaden our individual clinical capacities. It is an important aid to diagnosis.

DR. W. H. LUEDDE, St. Louis: Dr. Graves referred to studies of the vascular changes in the ocular conjunctiva made with the aid of the Czapski-Zeiss binocular microscope. This method of investigation is not in general use and offers many advantages. The binocular microscope is a pair of compound microscopes mounted similarly to a pair of field glasses. It enables simultaneous vision with the two eyes thus giving excellent depth perception. With each instrument can be had several pairs of eye pieces and objectives giving a wide range of magnifying power. It is supplied with an electrical illuminating apparatus, which I have improved by substituting tungsten lamps, especially adapted for that purpose. The mechanism is such that the instrument can be used to examine the anterior segment of the eye, including cornea, iris and lens, as well as the conjunctiva, with the head erect or at the bedside. The combination of lenses I have used most give a magnification of 35 diameters, but with the improved illumination a much higher power can be used. For a long time the examination of the fundus oculi has been a valuable diagnostic aid in determining the presence of arteriosclerosis. The disadvantages of the ophthalmoscope as compared with the method herein suggested are its lesser magnifying power (scarcely half as much), which does not permit examination of the smaller vessels where these changes are first to be found, and the lack of contrast between the vessel and its background, made up of the other blood-vessels and intermingled pigment of variable amount; on the other hand the conjunctival vessels stand out sharp and clear against the white sclera. Even the finer capillaries with the red blood-corpuscles passing through in single file can be detected. Any obstruction to the blood-stream by a localized thickening of the intima can be found before the vascular disease has produced gross lesions, such as abrupt breaks in the continuity and caliber of the vessels and hardening of their walls, beaded vessels and aneurysms. No other tissue of the body is more available for this study. As Dr. Graves has stated, vascular changes were found in the examination of certain young infants—under chloroform—at the suggestion of Dr. V. P. Blair. While slight changes could not always be verified by the examination of blood-vessels in other parts of the body, in all cases showing pronounced arteriosclerosis in the episcleral vessels evidence could be found elsewhere of its existence, and it was possible in many cases to determine the cause. Particularly was this true in a large number of cases examined for Dr. Graves in connection with his studies on scaphoid scapula.

Dr. Graves' communication has raised a number of interesting questions. For instance, scaphoid scapula was present in all cases of divergent strabismus I have examined since he first called my attention to this anatomical variation, both in my private

practice and in my service at the Washington University eye clinic (O'Fallon Dispensary). In the only case in which the test was made the mother gave a positive Wassermann reaction. In another, the father acknowledged the syphilitic infection long before his marriage; had been treated until "cured" and was told that he could marry without risk. In the third case the father has been sent out of the city, but the family physician thought it likely he had syphilis. Can it be that these cases of paresis of convergence are due to a masked or remote form of hereditary lues? Convergent strabismus is usually explicable by the condition of the refraction. No satisfactory explanation has been found for the divergent form. Dr. Graves has said that possibly other causes may produce a scaphoid scapula, but that certainly hereditary syphilis is one cause. It therefore becomes important, if possible, to exclude syphilis whenever this sign is present, and not only in the parents but in the grandparents and all the great-grandparents as well. That is quite impossible in most cases, as we all know. No matter what may be the verdict on his discovery, after further research and experience, we must appreciate the thoroughness with which Dr. Graves has studied and classified this deformity and its allied phenomena and the zeal with which he is trying to clear up its etiology.

DR. C. R. WOODSON, St. Joseph: I desire to compliment the doctor on the able presentation of this subject. I have had much to do with vessel degeneration and degeneration of the central nervous system, but I have seen practically no children, being connected with one of the largest state institutions for seventeen years, but the children went to another institution. I make it a business to note the condition of the vessels in taking the pulse. It is a fact that syphilis exerts an influence in every line bringing about degeneration and I think we owe Dr. Graves a vote of thanks for his able paper.

DR. O. H. BROWN, St. Louis: In the last three months I have seen fifty to one hundred cases of tuberculosis and the majority of them showed scaphoid scapula, marked arteriosclerosis and the varnished sclera.

DR. W. W. GRAVES, in closing: I desire to issue a word in warning because it is necessary. I should be unhappy the rest of my days if I felt that anyone would assume that the scaphoid scapula in any individual means that his parents had had syphilis, without first finding the physical signs mentioned in my paper and then comparing him with the members of his own family and with the average members of the community.

RUPTURE OF THE INTESTINE FROM ABDOMINAL TRAUMATISM *

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Rupture of the intestine in some of its forms is the most serious complication of abdominal traumatism. There are no statistics which show the relative frequency of this concurrent injury, though it appears often enough and with such a high mortality as to demand a thorough knowledge of its etiology, diagnosis and treatment.

Under ordinary circumstances, the intestines are well protected in the abdominal cavity with

the bony framework of the spine, ribs and ilia dorsally, and the abdominal muscles in front. Almost involuntarily, these anterior muscles become rigid to an impending blow, but taken unawares their flaccid condition offers but little resistance and the gut is caught between the impinging body and the bony posterior wall. The resultant traumatism to the bowel may be any degree of injury from a contusion with a torn mesentery to a complete rupture.

The scope of this subject is so extensive, including injury from all types of traumatism to the abdomen, such as crushing accidents, buffer injuries, falls, ruptures of hernia, etc., that only one phase will be considered, namely, injuries from blunt objects. This general classification includes injuries from kicks of horse or man, falls on a projecting corner, boards driven from a circular saw, falling objects, etc.

These are the most common causes as shown by such reports as Gage's¹ records of eighty-five cases. Thirty-two were due to kicks and six to a board thrown from a saw. In Makins'² report from St. Thomas Hospital there were eight injuries from blunt objects in a series of twenty-one.

With the exception of buffer accidents or crushing injury where the force pulpifies the intestine, the greatest traumatism as well as the greatest diversity of type of injury occurs under this group. The least bowel injury that results is an abrasion or contusion of the gut wall with or without laceration of the mesentery. There is no escape of feces into the peritoneal cavity, and perforation, if it occurs at all, is delayed from twelve to twenty-four hours incident to a sloughing of the bowel.

If the gut is distended, even moderately, a rent or a round perforation the result of a "blow-out" may occur.

The mechanism of "blow-outs," which are so frequently found and so characteristic of injury to a full or moderately distended bowel, is easily understood when we consider the method of application of a force to a tube such as a loop of intestine and the arrangement of the muscular coats. Given a loop of gut, the openings closed by the impinging body, and the inter-gut pressure suddenly raised, the gas or fecal contents are forced in the line of least resistance and a rent or tear results. Contrary to the usual opinion, that part of the gut opposite the mesenteric attachment is the weak point, hence rents and "blow-outs" are located here. Chlumsky's³ experiments on living gut proved this fact, which had been noted from clinical observation. The term "blow-out" more particularly means a round

1. Gage, Homer: *Annals of Surgery*, xxxv, 331.

2. Makins: *Annals of Surgery*, xxx, 137.

3. Chlumsky: *Beiträge Zur. Klinische Chirurgie*, 1899, Bd. 25.

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

perforation with protruding mucous membrane. The round perforation of ulcer is smooth and the mucous membrane does not protrude. All "blow-outs" are, at their inception, short rents. The immediate contraction of the inner circular muscular fibers and the retraction of the outer longitudinal coat convert the rent into a ragged circular opening. If the rent is long, the circular fibers cannot retract sufficiently to convert the opening into a circle and the perforation is oval. The pouting mucous membrane prevents, for a time, the extrusion of feces and the peritoneum is little soiled. These cases do not show the extreme shock seen in those with the more severe types of rupture.

Where the force has been applied through a very blunt object, such as a horse's hoof or saddle horn, the intestinal injury is more severe and more likely to be multiple than when received from a sharper object. With these types of injuries complete rupture or tearing the bowel from a fixed point as the ileo-cecal junction, long tears and deep contusions may result. In ten per cent. of these cases the injury is multiple.

In Homer Gage's series of eighty-five cases the location of the injury was as follows: duodenum, 10; jejunum, 20; ileum, 43; large bowel, 6. Makins' series of cases showed sixteen injuries of the small bowel and five of the large. Moynihan⁴ states that it is an undoubted fact that rupture is more common the greater the distance from the duodeno-jejunal junction.

The point of injury to the abdomen is usually found to be below the umbilicus. In Makins' series of nine cases, the point of impaction was below the umbilicus in eight. In Lund's⁵ series of nineteen cases, only in two was the blow known to have been above the umbilicus. Makins concludes that injuries received below the umbilicus rupture the intestine because the bony wall of the pelvis as well as the vertebral column here offer counterpoints for compression.

The abdomen below the umbilicus is thus termed the "dangerous area." Rupture of the colon is not to be distinguished, as regards symptoms, from rupture of the small intestine except where it occurs in those portions not covered with peritoneum. Here, with the usual symptoms of intestinal rupture plus emphysema of the flanks, a diagnosis can be made.

The question of a diagnosis of a case which has received an injury such as would fall under this general type, is of the utmost importance. Many lives would be saved if the diagnosis was made in time for surgery to be of any avail. Hertel,⁶ quoted by Littig, states that 52 per cent. of the patients recovered when operated on

within the first six hours; 46 per cent. during the second six hours; 21 per cent. during the second twelve hours and but 7 per cent. when operated on in the second twenty-four hours.

In many cases it is very difficult to determine whether the patient has anything more than a severe contusion of the abdominal wall. The amount of internal injury is out of all proportion to the symptoms, which may be so slight as to be almost overlooked. Statistics show that the chances are that there is no internal injury in a majority of cases, yet Kirmisson⁷ finds that a man kicked in the abdomen by a horse has one chance in three of dying. Nimier,⁸ who advocates expectant treatment in these cases, collected 307 contusions from kicks of horses of which 215 recovered and 92 died. A thirty per cent. mortality from so common an injury as a horse kick demands a careful observation to exclude intestinal injury. Since one-third of these cases shows intestinal injury, a careful history of the accident is of the utmost importance in making a diagnosis.

Shock is a very important factor. It depends somewhat on the nervous make-up of the individual and may not be present. This is the exception, however, for practically all peritoneal injuries show some degree of shock. Shock beginning slowly and progressing deeply is of great significance. Associated with thirst and syncope it indicates hemorrhage. Delayed shock, as late as eighteen to twenty-four hours, may be due to delayed perforation incident to a slough of the bowel from thrombosis of mesenteric vessels or contusion.

Abdominal rigidity or muscular rigidity is a sign of the greatest value. It is one which in the presence of intestinal injury is not relieved by opium or an anesthetic. When there has been profuse hemorrhage it may not be present. A gradually increasing pulse rate, taken hourly, which increases from the time of the accident or after the more severe shock has passed off, indicates perforation. The facies of the patient is characteristic. Pain is not a constant symptom and is not diagnostic. Nausea, vomiting and obstipation if persistent indicate intestinal injury. The sudden presence of fluid in the abdominal cavity usually means hemorrhage, liquid feces or serous exudate incident to intestinal or mesentery injury.

These few cardinal symptoms, especially muscular rigidity, increasing pulse rate, more or less shock, with a knowledge of the history of the traumatism, particularly where the point of contact was in the region below the umbilicus, the so-called dangerous area, make a diagnosis of intestinal injury.

4. Moynihan: *Abdominal Operations*, p. 363.

5. Lund: *Rupture of the Intestines*, Med. and Surg. Reports, Boston City Hosp., 1905, p. 49.

6. Hertel: (Quoted by L. W. Littig) *Surg., Gynec. and Obst.*, x, No. 3, p. 315.

7. Kirmisson: *La France Medicale et Paris Medicale*, November, 1895.

8. Nimier: *Arch. de med. et de Phar. Mil.*, March, 1898.

In cases where there is a doubtful diagnosis, in the words of Bryant,⁹ "keep an armed expectancy." These injuries are so misleading as to symptoms and so fatal when operation is delayed, one is almost justified in operating when in doubt. The rupture of hollow viscera almost always results fatally unless treated surgically. The mortality is placed at 86 per cent.¹⁰

As soon as a diagnosis has been made, the quicker surgical intervention is undertaken the better the chance for the patient. Every moment of delay detracts from a successful result. A minimum amount of anesthetic and speed of operating are absolute essentials. Authorities differ as to the location of the incision. Moynihan advises a median incision where all parts of the abdominal cavity can be examined. Lund and others advise incision through the area of impact as the loop of gut is usually found just below and any subcutaneous muscle ruptures can be repaired. Either method of incision is to the choice of the operator. The loop of injured gut being found, it is drawn out of the abdomen. The abdominal cavity is protected with gauze wrung out of normal salt solution, exposing the peritoneum as little as possible. Small rents are repaired with a double row of sutures. Long tears or where the gut is badly damaged or the blood supply destroyed incident to a torn mesentery, demand excision and anastomosis. The gut being repaired, the peritoneum is sponged with moist pads, drains inserted in the dependent portions of the abdomen and the abdominal wound closed.

The patient is put to bed and proctoclysis instituted. As soon as the anesthetic has passed off he is put in the Fowler's position. The following cases illustrate the typical history and injury of this type of traumatism:

CASE 1.—F., Liberty, Mo., aged 14. Referred by Dr. F. H. Matthews. He was injured by a Shetland pony falling backwards on him. The pommel of the saddle struck a little to the right of the umbilicus. He retained his position in the saddle when the pony arose and was able to walk to the house 100 yards distant. On the doctor's arrival he was lying down but got up and walked without difficulty and urinated. He complained of slight pain over the abdomen, but with no pain or tenderness on pressure. The penis was somewhat ecchymotic and there was a slight contusion over the right lower quadrant of the abdomen as large as one's hand. Apparently the blow was struck glancing. There was no distention and no rigidity. Temperature and pulse was normal. No nausea or vomiting or any evidences of shock. Eight hours later he was nauseated and complained of pain, more severe on the right side with some muscular rigidity. Pulse was increasing. Respiration costal in type. Operation advised but refused. Pulse continued to increase till operation twenty-four hours later, when it was 148, with signs and symptoms of general peritonitis.

Operation.—St. Mary's Hospital, Dr. W. J. Frick. Ether anesthesia. The incision was made through the ecchymotic area, through the right rectus muscle. Here was a large blood clot lying between the ends of the ruptured muscle. On opening the abdominal cavity there was a small amount of feces and fluid. The loop of injured bowel was found just below the incision and brought into the wound. Three inches were incised and an end to end anastomosis done. There was no fibrinous exudate. The mesentery was sutured and the peritoneum carefully sponged and the abdomen closed with a large drain in the pelvis. The boy was put back to bed in fair condition. Proctoclysis was instituted but he did not react and died before morning.

The loop of ileum excised shows these injuries: one round laceration, evidently a typical "blow-out" distal to the mesenteric attachment. A severe contusion on the side of the gut, where the pommel of the saddle crushed the gut against the vertebral column, probably after the "blow-out" occurred and the loop collapsed. The mesentery was torn somewhat, but not sufficiently to cause any severe hemorrhage.

CASE 2.—Dr. Keith of Lawrence, Kans. Boy kicked on the abdomen after breakfast. There was considerable pain at the time, but this subsided later. A doctor was called who ordered calomel. Twenty-four hours later he was feeling very well, but had passed a restless night. At noon, thirty-six hours later, he was in serious condition, with a rapid pulse, distention and a rigid abdomen. Dr. Keith operated, but patient's condition became alarming on the table and the abdomen left open with a drain. He rallied later, after energetic stimulation, and had a fair night. On the third day after the operation, the wound was discharging large quantities of fecal matter. The abdomen became tense and he looked badly. He died on the seventh day after the accident.

This was probably a case of delayed perforation, incident to a slough at a contusion of the bowel received at the time of the accident.

CASE 3.—Boy, aged 13. His playmate, while in a tree, dropped a stick the size of a broom handle on him. The stick struck him in the upper abdomen, knocking the wind out of him. He walked home. Twenty-four hours later his condition became bad and he was sent to St. Joseph's Hospital. Operation by Dr. J. D. Griffith.

The abdomen was opened in the medium line. Free bloody fluid, with a white membranous exudate, was found in the abdominal cavity. There was a three-cornered perforation in the ileum about one and a half inches long. The perforation was closed with a double layer of silk sutures, and the abdomen closed with drains in the pelvis. Proctoclysis was instituted and he had a good night. He died thirty-six hours later of general peritonitis.

This was a case of "blow-out" with a large tear in the bowel.

CONCLUSIONS

1. Rupture of the intestine following abdominal traumatism from blunt objects is common.
2. The diagnosis is made from a careful history of the injury and the cardinal symptoms, muscular rigidity, increasing pulse rate and some degree of shock.
3. Early operation offers practically the only hope of recovery.

714 Shukert Building.

9. Bryant: Brit. Med. Jour., Feb. 18, 1888.

10. Douglas: Surg. Diseases of the Abdomen.

DISCUSSION

DR. H. C. CROWELL, Kansas City: It seems to me there is little that I can add, and will simply attempt to emphasize the features brought out in the last paper, which seems to me to be a concise and clear statement of the case. If we mix it up by discussion, it will not have the desired effect. I would, therefore, simply advert to the features that appeal to me. First, to regard all these cases as surgical, and bear in mind the few surgical symptoms which the essayist has mentioned, the character of the injury, condition of the pulse, evidence of shock, and everything intimating a surgical operation, and then, if any doubt exists in regard to the extent of the injury, operate early.

The cases of obstruction spoken of by Dr. Dudley as the result of appendicitis, are, in my judgment, rather common, and usually occur in cases of delayed surgical attention. Frequently, this condition has been found as the result of an attempt to carry out the Ochsner treatment, the obstructive element being overlooked, and thereby resulting in a necrosis requiring resection of the gut. These cases should, in my judgment, not be attempted at once where an anastomosis is required, as the condition of the patient frequently will not tolerate the necessary work. Better, it has seemed to me, should be the practice of bringing the gut out of the abdominal cavity and allowing time for a proper demarcation to take place, in order that we may have more perfect results later when we attempt the final repair.

The subject of pericolicitis, of which Dr. Jackson has spoken, seems to me to be a distinct entity, differing in many respects from similar conditions described and written about quite extensively. I would refer particularly to the writing of Lane, of London, who, while possibly attempting to describe a similar lesion, does not, from my conception, seem to correspond with the cases so well described by Dr. Jackson. These cases, as I have seen them, present a definite and distinct picture, which will enable anyone, though he may never have seen a case, if he will observe the facts as brought out by the essayist, to make a diagnosis. I have doubtless seen many cases, but have never recognized them until I read the doctor's reprint, since which time I have been able to diagnose several cases, and, on operation, demonstrate the lesion. The result of the operation has been a perfect cure. The nature of this membrane does not seem to be well understood. To me it has appeared more like a congenital membrane, it in no way presenting to me indications that it is the result of an inflammatory process. The texture, vascular supply, pliability and easy separation from the underlying colon, negative the opinion that it is of an infective or inflammatory origin.

DR. MAX W. MYER, St. Louis: Dr. Seelig was the first to show by a careful, scientific study, the value and safety of the simple ligation of the appendix stump. This he demonstrated as early as 1904. This paper has been quoted by all men interested in this method, and Morris says that after a careful study of this paper, he was converted to the ligation method. I have never used ligation except in abscess cases. I believe, however, that the objection to this method, as well as the inversion of the stump without ligation, is entirely theoretical. The model shown by Dr. Seelig does not present a true picture. No one inverts the stump without first crushing it, which tends to obliterate the blood vessels.

Dr. Jackson first called my attention to the condition, which he has described as "membranous pericolicitis," something over a year ago. In this case, the membrane was on the transverse colon, secondary to a cholecystitis. Since this, I have observed the membrane a number of times on the cecum, secondary to chronic appendicitis, and very recently I saw a case involving the ascending colon with the cecum free in a

colitis secondary to tuberculosis of the cecum. The microscopic picture as described by Dr. Jackson does not preclude its being a chronic inflammatory membrane and secondary to some other lesion. We find chronic inflammatory cysts in the pelvis, with a structure similar to the pericolic membrane. On the small intestine such membranes are not found, because of the free mobility of the bowel, which would tend to break up and cause rapid absorption of the fibrinous exudate before it could become organized. On the large bowel, which is fixed to the posterior wall, but has its free peristaltic movement, we would expect just such an organized membrane to be formed from inflammatory exudates secondary to some chronic inflammatory process in this region.

DR. H. C. DALTON, St. Louis: I just want to speak of one remark made by Dr. Kuhn. I have seen a large number of cases of rupture of the bowel and my experience in every single case has been that the pain was not only there but it was intense. One peculiarity about the pain is its periodicity, the interval between pains being one of comfort. About a month ago I saw a young man eighteen years old in consultation with Dr. Samuel J. Barker, who had received a blow on the abdomen two hours prior to my visit. Immediate operation revealed a rupture of the ileum. The patient recovered.

DR. C. H. WALLACE, St. Joseph: In regard to Dr. Jackson's paper I want to call attention to the pathological condition. I have seen nine cases and while some of them recovered, in my experience only those got well where I did other work. In two cases floating kidneys were at fault. In the first operation this was not corrected and the operation gave no relief. In another case gall bladder work was done and the symptoms disappeared. In three cases where nothing was removed but the appendix there was still a continuance of the pain.

DR. H. E. PEARSE, Kansas City: The pathological changes that take place around the base of the appendix are usually responsible for trouble after you ligate and invert the appendix.

Concerning Dr. Jackson's paper, I wish to say that I believe he has mentioned and described a condition which we have all seen but did not recognize.

Speaking of Dr. Brown's paper, I think Dr. Brown is in error when he says that Mr. Lane has abandoned the removal of the large intestine.

DR. HOWARD HILL, Kansas City: I desire to say that if one is to get good results in removing this membrane, it is necessary to do it thoroughly and completely so as to remove the many angulations and constrictions which are often present. If one is painstaking in his technic the results are, in my experience, unusually good, but the fundamental indication is, to remove the obstruction in the ascending colon: it makes little difference what the original cause of the pericolicitis may have been.

DR. FRANCIS REDER, St. Louis: I was very much pleased to hear the classification Dr. Kuhn has made relative to such traumatisms. In injuries of the abdomen, where there is no external evidence of injury having been received, it is well to examine closely into the etiological factor to which the trauma may be attributed. We know how difficult it is to discover small intestinal perforations; they are indeed readily overlooked. Intestinal traumatisms are often of an unusual etiology and the history will frequently be of aid in hinting to us the character of the trauma to be looked for. For instance, an object striking the belly directly, the contact being only over a small area of the belly wall, will usually produce a small perforation, a "blow-out" as the doctor has called it. This is well illustrated in the case he cited, where the rider falling backwards with his horse was struck in the belly with the pommel of the saddle. I have

had about eight abdominal injuries of such a nature and invariably the small perforation was found.

Now, if the object that strikes the belly directly is broad, like a board, the area of contact being large, we may look for a tear in the intestine that is longitudinal, transverse or rectangular, usually the latter, and if the force possess great violence, not only may the intestine show trauma but the mesentery may also be extensively torn.

DR. C. LESTER HALL, Kansas City: I ligate and invert the stump. I use a small size sterile catgut. I expect it to give way in a few days and if leakage occurs it will be into the colon.

THE TECHNIC OF IMMEDIATE CLOSURE OF BLADDER FOLLOWING SUPRAPUBIC CYSTOTOMY *

C. E. BURFORD, PH.D., M.D.

ST. LOUIS

The operation to be described has been practiced by various surgeons for a quarter of a century; yet it has never become popular. The reasons for its failure and unpopularity are easily pointed out and, as I believe, the obstacles to success are not difficult to surmount.

Instead of immediate, complete closure of the suprapubic wound being a curiosity, it should be the routine procedure in the majority of cases. Constant drainage of the bladder preventing distention and sudden tenesmus, is a necessity if integrity of a freshly sutured vesical wall is to be maintained.

Instead of the perineal or suprapubic drain, the method under discussion involves the use of the natural channel of the urethra for a large caliber drainage tube.

Formerly, small or medium sized catheters have been used for this purpose with the result that they have been soon occluded with blood clots or mucus, the bladder distended (the one thing to be avoided), the wound broken open, the patient greatly distressed, and the operation brought into disrepute. Any method which will effectually overcome the disgusting ammoniacal odors and the constantly saturated dressings and bed clothing of suprapubic drainage, should be welcomed by every surgeon. The best operators seem to have trouble with sloughing wounds and persistent fistulae following suprapubic operations. Moynihan¹ says: "At each flushing of the bladder a few small sloughs can be picked away with dissecting forceps, from the suprapubic wound."

A multitude of mechanical appliances and apparatus has been devised in an attempt to take care of the suprapubic drainage and to keep the patient dry. As an example, Hamilton Irving² devised the celluloid collarette and crown to

fit over it, held tightly over the wound by a band about the body. All such apparatus excludes the air, causes softening of the tissues and excoriation of the skin.

Belfield³ says: "Suprapubic cystotomy admittedly affords the best access for intravesical operations and when primary union of incision is secured, leaves nothing to be desired; but primary union is not usually secured nor even attempted." His method is to drain the prevesical space by a tube passed down between the bladder and the pubic arch, and brought out through a perineal incision. In case there is a leak in the bladder wound he diverts the drainage down through the prevesical tube, thus holding intact the external suprapubic wound.

Lange⁴ was one of the earliest to recommend suturing of the bladder to secure primary union while draining the urine by a catheter retained in the urethra.

Minute Description of Technic.—The preparation is the same as for any laparotomy plus careful cleansing of the genitalia and flushing of the bladder with boracic solution, 2 per cent, until it returns perfectly clear. The bladder is distended with boracic solution or with air, if of average capacity, in order to press the peritoneum from the space of Retzius. If, however, the bladder is contracted to a capacity of 2 ounces or less it will be found much easier to strip the peritoneum from the anterior wall of the bladder with the hand and incise the bladder onto the point of a curved metal sound of medium or large caliber, passed well into the bladder while the handle is pressed down between the thighs.

The medium longitudinal incision is preferable, beginning close to the symphysis and continuing about 3 or 4 inches up the white line. When the prevesical fat is reached, the fold of peritoneum is brushed well up from the anterior wall of the bladder. The two stay sutures of heavy silk in either side of the bladder wound are better retractors than tenaculæ, being out of the way and less apt to tear.

When the intravesical operation is complete and all hemorrhage is checked, attention should be turned to the vesical neck. If it is not of large caliber it is very important to use divulsion with a large conical bougie; or, if there is fibrous tissue, a uterine dilator will be found convenient and the divulsion should be carried to the point of admitting the index finger without much sense of tension.

A large retention catheter in the urethra causes pain, principally at the meatus and in the prostatic urethra, and free incision of the floor of the meatus will allow a patient to wear a large caliber retention catheter with surprising comfort. The retention catheter should have an open end, also an eye on the side very close to the end. I

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

1. Ann. of Surg., 1904, xxxix, No. 1, p. 1.

2. Lancet, 1907, ii, 1756.

3. Ann. of Surg., 1907, xlv, 101.

4. Bangs: New York Med. Jour., 1889, xlix, 682.

have found most practical a drainage catheter made by a Paris house, and it is especially well finished about the eye and open end; the end being cut at an acute angle with the catheter. It is almost impossible for blood clots to obstruct this catheter so that they cannot be easily removed by aspiration. The catheter size 27 to 30 mm. is now introduced through the urethra into the bladder, leaving a half inch of the tip visible in the bladder. An assistant now firmly anchors it to the penis with zinc oxid adhesive. The bladder is closed with a double row of catgut sutures. The first sutures should include the entire thickness of the bladder wall, and should be made with running stitch, unless the wound is very long, in which instance it should be frequently interrupted to insure greater strength. A very close, carefully placed row of sutures is then taken over this, à la Lembert, which should make the bladder wound water-tight. The wound may then be tested for leaks by injection of boracic acid, but it is not necessary if the drainage is properly adjusted. The bladder should never be sewed to the abdominal wall in an attempt to fill dead space, as patients always complain of more pain and more bladder spasms when this is done. If the patient is raised in the Fowler position, the intraabdominal pressure will fill all the dead space next to the pubic arch. If the bladder is infected at the time of operation, it is well to put a small cigarette drain through the muscles down to the prevesical cellular tissue. The drain should be removed in forty-eight hours.

The muscles and fascia are closed in layers by catgut unless the bladder is foul with infection, in which instance it is often wiser to use the figure of eight silkworm gut suture. Silkworm gut is used in the skin.

One to 2 ounces of boracic solution are injected into the bladder in order to start siphonage when the catheter is connected with a rubber tube leading to a bottle under the bed. The same amount of boracic solution is injected every two to four hours for the first day, depending on the amount of hemorrhage, cystitis, etc. Thereafter the injection is made about three or four times in twenty-four hours for ten days.

The patient may be allowed to sit in a chair after four or five days; and the drainage tube should be removed and cleansed after five days; but should be reintroduced so that the total period of drainage is a week to ten days. I have had the experience of removing the urethral drain in one week and finding a small leak of urine through a suprapubic stitch hole where it had been previously dry; but this has not happened after the wound has remained dry for ten days.

The character of cases in which this technic is indicated is as follows:

1. Following removal of all benign and many malignant growths of the bladder when hemorrhage is not great.

2. Following all cases of suprapubic cystotomy for retrograde catheterization of impassable stricture of urethra.

3. Following many cases of suprapubic lithotomy.

4. Following many cases of suprapubic prostatectomy where the cystitis is not too severe.

BLADDER STONE *

E. G. MARK, M.D.

KANSAS CITY, MO

In reopening what has hitherto been considered a closed chapter in urological surgery, I wish to present to this Association certain features in the diagnosis and treatment of bladder stone, the importance of which has been but hazily understood. I have been forced to this conviction by observing grave mistakes in diagnosis and treatment at the hands of surgeons of recognized ability. With the placing of urological surgery on a firm basis these mistakes have become inexcusable.

It is of the utmost importance that the essential features in the diagnosis and treatment of vesical calculus should be thoroughly recognized and in the comprehensive diagnosis of stone we are confronted by the following questions:

(1) Is a stone present? (2) If present, have we to deal with a single or multiple calculi? (3) What is the character of the stone or stones, i. e., are they of the soft or hard variety and of what size? (4) Is the stone encysted, enclosed in a diverticulum or impacted in or protruding from the ureter, or does it lie under an overhanging prostatic projection? (5) If a click is elicited by the searcher, have we to deal with a stone or a phosphatic-capped neoplasm or ulcerated area?

That a knowledge of the above conditions is important, especially so if litholapaxy is contemplated, can hardly be denied and we know of no means other than careful cystoscopy by which such knowledge can be obtained.

In the detection of vesical stone, the searcher may and does often fail for the following reasons:

(1) The stone may be caught in a diverticulum. (2) It may be held between the rugations caused by congestion. (3) It may lie in a deep bas-fond behind an overhanging prostatic ledge.

Fenwick has described an atonic sacculation of the bladder occurring just behind the interureteric ligament which may imprison the calculus and render its detection by means of the searcher extremely improbable. Under such circumstances, a positive diagnosis can only be made by

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

cystoscopy, and the frequency of such conditions is such as to deserve much greater recognition than is given by the general profession.

The appearance of stone presented under cystoscopy is striking and characteristic. The coloring and shape vary with the composition of the calculus. Kidney stones which have but recently entered the bladder are grayish-brown (uratic) or reddish-brown (oxalate). They may be smooth or spiculated. Stones which have remained in the bladder for a long period or which have formed in this viscus are phosphatic and vary from a grayish-white to a dead-white in color. Their surface is usually smooth but if multiple calculi are present, will present irregular faceted surfaces.

Partially encysted stone or stones which are impacted at the orifice of the ureter will be noted as projecting apparently from the bladder wall. If the stone is old it may have a mushroom appearance.

A stone which has recently become lodged in a diverticulum does not completely fill the cavity. If the diverticulum be large and the stone comparatively small, the phonophore devised by Follen Cabot and later modified by Eaton is of service in the detection of the calculus. If the stone has remained in the diverticulum for some time, it may probably completely fill the cavity or may mushroom out into the bladder cavity.

In the cystoscopic diagnosis of stone, it seems hardly necessary to warn against mistaking a phosphatic-incrusted neoplasm for a calculus. The incrustation of a growth is thin and is readily fragmented by tapping with the beak of the cystoscope. The growth is usually readily observable and careful cystoscopy will establish the differential diagnosis.

As evidential of the extreme importance of a careful diagnosis in stone, I have on several occasions seen both negative and positive diagnoses made by extremely able men by the ordinary methods of clinical investigation which diagnoses have later been proved incorrect by cystoscopic examination. I wish here to present two stones the presence of which in the bladder did not give rise to the usual clinical symptoms of stone. The smaller stone was attached to the anterior wall of the bladder by silk ligatures and produced no obstruction and no irritation except when the bladder was empty or when the patient was in a supine position. The larger stone was entirely enclosed in a congenital diverticulum and could not be detected with the searcher. In connection with the latter case it may be apropos to state here that I have observed several stones through the cystoscope which were not detectable by means of a searcher. In one case there were over thirty calculi which were protected from the point of the searcher by an overhanging prostatic projection. In another case which I observed the stone was partially

encysted and could not be detected by the searcher. Cystotomy was suggested and rejected by the patient in favor of litholapaxy, which was afterward done by a Chicago surgeon with most unfortunate results. It would seem to me that no further arguments should be required to emphasize the necessity for careful cystoscopy in suspected stone.

The treatment of stone necessarily depends on the conditions demonstrated by painstaking diagnosis. In the majority of instances the accompanying cystitis makes the drainage incident to cystotomy desirable if not imperative. In such cases litholapaxy is distinctly contraindicated by reason of the fact that in the presence of a badly infected bladder the traumatism accompanying a crushing operation is distinctly dangerous in the absence of adequate drainage. If the stone is encysted or is of unusual size or is accompanied by enlargement of the prostate with residuum, suprapubic cystotomy with the excellent drainage afforded thereby is the operation of choice. If we have to deal with contracture of the bladder neck—the so-called sclerotic prostate—perineal lithotomy with division of the contracted neck is indicated. If the stone is comparatively small or soft and there is no particular indication for drainage, litholapaxy properly carried out is the procedure of choice.

I have always been of the opinion that the only proper method of performing litholapaxy is under the direct guidance of the eye, i. e., by means of the cystoscopic lithotrite. The essential requirements of such an instrument are an adequate view of the stone during the operation of grasping it in the jaws of the lithotrite and sufficient crushing power. Unfortunately, the cystoscopic lithotrites which have hitherto been given to the profession by Nitze and Bierhoff have fallen far short of these necessary requirements. About two years ago Walker, of Baltimore, presented to the profession a cystoscopic lithotrite which more nearly answers the demands of the operation than any other instrument at our command. Its crushing power is tested at 175 pounds which is quite sufficient to crush the ordinary stone. It has but one fault that the writer has been able to find and that is the lack of fenestration of the female blade or shoe. With this exception, it meets practically every demand of an instrument of this character. In those cases, in which the indications were for litholapaxy I have been able with this instrument to grasp the stone under the direct guidance of the eye and carry out the procedure of crushing and evacuation of the fragments in practically an ideal manner. There has been practically no clouding of the distention medium during the process and what trauma has ensued has been due to the use of the evacuating apparatus afterwards.

There has been one exception. In this case, the stone was readily crushable but the lack of fenes-

tration of the shoe of the instrument allowed the soft fragments to become impacted between the jaws. The resultant lack of closure of the bladder prevented the withdrawal of the instrument, rendering perineal urethrotomy imperative. Recovery was uneventful.

The points to be particularly emphasized in this short paper are the absolute necessity for a comprehensive diagnosis of the presence of stone and the accompanying conditions and the fact that subsequent treatment must be based on a proper interpretation and consideration of these diagnostic points. That such a diagnosis with its following intelligent therapeutics cannot be made without resort to cystoscopy I wish especially to emphasize.

DISCUSSION

DR. W. T. ELAM, St. Joseph: One of the most important points is the continual injection into the essays of the one essential diagnostic feature, that of cystoscopy, which is gradually becoming so imperative that all surgeons are drifting toward it as it enables them to view and measure accurately with the eye what they have to contend with. The day has arrived when men who do this special work have come to rely upon the cystoscope for diagnostic purposes. The surgeon of to-day and of the future must of necessity learn to use the cystoscope with some degree of accuracy in order to make a thorough diagnosis and, in some instances, to operate. Dr. Mark has well shown the fact that many bladder stones may exist that are not to be discovered by any known means other than by the use of the cystoscope or by an incision. As to stones in the bladder, diagnosis is not at the present day a hard matter; the fact that a surgeon cannot by the old methods find a stone that is in the bladder is no excuse, for the cystoscope can be used by the surgeon in order to determine the presence of such a body in the bladder.

As to the question of drainage following operations for stone in the bladder. Many of these cases are complicated by infection attended by a thick mucopurulent secretion in which oftentimes there is a deposition of urinary salts making free drainage and irrigation necessary. It has been my custom in these cases to secure drainage through the incision (usually suprapubic), and I have found it so entirely satisfactory from all points of view that I would at this time hesitate to change it. That the tissues may be urine soaked for twelve to twenty-four hours may be true, but if the sutures are properly applied and the tube is properly placed there is no reason why the patient should not have perfect siphonage and derive as good, and in my opinion better results, than if the tube were inserted through the urethra. However, I desire to commend Dr. Buford's paper and am duly impressed with the claims he makes for urethral drainage.

DR. ERNST JONAS, St. Louis: In regard to Dr. Mark's point, that we should use the cystoscope more, I think we all agree. Dr. Hertzler has shown us that it is possible to remove the prostate without opening the bladder but I believe it is very doubtful that such a procedure is advisable. We usually want drainage of the bladder and it should be drained for a few days—rather through the perineum than with a permanent catheter.

DR. W. T. COUGHLIN, St. Louis: I have seen a good many prostatectomies. I have seen the prostate removed by the perineal and by the suprapubic routes and I have seen it removed by a combination of these

methods. I have never seen it removed without injury of the bladder, injury to the ejaculatory ducts and injury to the urethra. It may be possible to remove it without injury to these structures but I have never seen it done. In the dissecting room I have often tried to separate the prostate from the base of the bladder.

I would like to see one who can conserve ejaculatory ducts, the mucous membrane of the bladder and the prostatic urethra, remove the prostate half a dozen times.

DR. FRANCIS REDER, St. Louis: We have heard from one of the gentlemen something about transperitoneal incision. This procedure is rather a bold one, however, and I could not recommend that this be followed by all. If I were placed in such a position as to have something the matter with my bladder I should certainly ask the surgeon not to open the peritoneum. We do not know what state the urine is in and to what extent the peritoneum might become infected. With reference to gaining access to the interior of the bladder it is necessary to have an incision that will give you the best scope for the work. Whether the incision is made transversely on the skin or not, is immaterial. Enough room can be gained with the transverse incision into the bladder wall for all manipulations that may be required. In conditions, such as a cancerous growth, where the transperitoneal incision becomes imperative for an operative measure, I can say from my own work and to a great extent from the work of others which I have witnessed, that the interests of the patient or his comfort can be best served by other measures than operative.

DR. HERMAN E. PEARSE, Kansas City: Discussing bladder hernia, I was asked to cure an infantile hernia, and three months after operation I was told that my operation was not a success. I found a mass in the upper portion of the scar where the hernia had been and did not know what it was, although a study of the symptomatology should have told me. I found a bladder hernia, on operation, which I mistook for a malignant growth. The symptom which I shall call attention to and which I overlooked entirely until after I had demonstrated the nature of the mass to myself, was this: the mother said that when the child went to bed he had no hernia but when he woke up in the morning it was there, but was not there during the day.

DR. F. J. TAINTER, St. Charles: Surgery of the bladder has made such rapid strides in the past five years that the literature bearing upon that subject is practically useless. It is far better not to read a great deal of what has been written on this subject for fear that many things might be remembered which should be forgotten.

Surgeons will continue to attempt the removal of large neoplasms, calculi, etc., through a small suprapubic opening, within the narrow domain of the space of Retzius, so long as our text books on anatomy and surgery teach that the space can be increased by dilatation and that the peritoneal fold on the bladder can be carried anywhere from one-fourth to one and one-half inches above the symphysis pubis.

I have shown in the dissection room many times that this teaching is erroneous and that the prevesical part of the bladder is fixed and does not rise upon distension of the bladder. The bladder is somewhat saucer-shaped and dilates laterally and posteriorly. It was not until the bladder was accidentally opened during the progress of some other operation that we realized that it can be opened with impunity and that it will heal as rapidly, when stitched, as any other peritoneal-coated viscerum.

The transperitoneal method should be more often the one of choice than it is at the present time. When the Trendelenburg position is adopted and the bowels

packed out of the field, as in a hysterectomy, and the bladder pulled well up into the wound by means of toothed forceps, the operation is ordinarily a simple one. The bladder is closed with catgut reinforced by a peritoneal Lembert row of silk, or Irish linen. The bladder can be drained through retention catheter if desired.

When I have occasion to drain the bladder through the space of Retzius I stitch into the bladder a rubber tube which has been wrapped with iodoform gauze and covered with rubber tissue, after the method of draining the gall bladder. I am thus able to keep my patient dry and clean the first ten days. At the end of the period the catgut gives way, the tube is removed and the patient is able to take care of himself for the short period of convalescence.

What has been said of the literature of the bladder is in part true of the prostate. The erroneous idea of the physiologic importance of the ejaculatory ducts has led to elaborate operations on the prostate. Many of them are beautiful from an anatomic standpoint but should then be practiced only in the dissection room. Structures are exposed and we view things we have no business seeing. The pudic nerve, for instance, is often damaged thereby defeating the very thing that this extensive vivisection hoped to accomplish, by preservation of the ejaculatory ducts, namely, virility.

When will surgeons do their own thinking? How many more revisions of standard text books will we have before the truth of the prostatic urethra be taught? When it is known, foolish attempts to preserve the posterior urethral wall in a prostatectomy will cease. The anterior urethral wall is not elongated in prostatic hypertrophy. The posterior wall is elongated by being pulled down like a goose's neck and hence can as well be destroyed in a prostatectomy, as it will become obliterated later by connective tissue invasion.

Any prostate that can be palpated thoroughly per rectum can be removed by the perineal method. The prostatic urethra is opened as in an external urethrotomy and the prostate shelled out of its fibrous capsule by sense of touch.

I have done this in from four to twelve minutes with the very best results. If prostates extend well up into bladder beyond the peritoneal reach, I do the suprapubic enucleation, but instead of cutting mucous membrane I introduce a finger in the urethra from the bladder side and shell out prostate into the prostatic urethra exactly as I would below were I doing the perineal operation.

I insist that the sense of touch is far more valuable than sight in the presence of much oozing of blood and it is always present. I feel that a glimpse into the pockets of my trousers would not in any way aid my sense of touch in locating and removing my jack knife.

Dr. C. E. BURFORD, St. Louis: I am not surprised that all did not agree with me. Everyone has spoken about the bladder needing drainage; I drain in all cases. It is just a question of where you drain. Some drain through the perineum and others drain through the suprapubic wound. We drain through the natural channel of the urethra just as effectually and with less traumatism. The drainage through the urethra is from a lower point than drainage through the suprapubic wound. I put the patient in the Fowler position, which keeps the bladder absolutely empty except when it is flushed with a solution of boracic acid. The catgut sutures in the bladder wall should not be classed as buried sutures because of the cigarette drain through the skin wound.

You will be surprised how you will get primary union of the bladder wall in these cases even when infected, just as we frequently get primary union when suturing the skin after enucleating a badly infected bubo.

WHAT SHALL WE DO WITH PATIENTS WITH ADVANCED UTERINE CANCER? *

FRANK HINCHEY, M.D.

ST. LOUIS

By the term advanced uterine cancer we designate those cases of cancer in which the growth has developed to such an extent that a radical operation is contraindicated. In other words, they are the cases in which the time for a trial of curative treatment has passed and we feel that the patient is absolutely doomed to a comparatively early death. No question in surgery can demand the exercise of greater prognostic study, and, in all cases admitting of the least doubt, the final answer should not be given until a consultant has concurred, for the responsibility is tremendous.

In general I believe we may safely say that our answer to the question we have asked is to be determined from the result of our local findings, with entire disregard of the state of the general health of our patient. That is, if the case is suitable for radical operative treatment, we can afford to lose no time in measures calculated to increase the general vitality or the resistance of the patient. I think this proposition should admit of no controversy. Likewise, the symptoms of which she may complain—such as free hemorrhage or loss of weight—are of no consequence in determining the feasibility of a radical operation, for the lymphatic involvement may not be extensive and the advance of the growth may be comparatively slow, where such symptoms have been noted for several months. When, however, our local examination, under anesthesia, reveals apparent fixation of the uterus, or when the peri-uterine invasion has extended to the pelvic wall, or when cystoscopic examination reveals bladder-wall involvement, we are forced to consider the adoption of measures calculated to prolong life.

It is exceedingly regrettable that the great majority of cases coming under our observation are inoperable; and, further, it is to be regretted that the medical profession must bear a great deal of the blame for the existence of these inoperable cases, because of the failure to recognize the importance of uterine hemorrhage as an early symptom of cancer, as I have emphasized in a former paper.

What are the symptoms demanding our urgent attention in inoperable cancer? In the common order of occurrence they are: loss of strength, local blood-loss, local discharge, and pain. To meet these indications for treatment, even in a fairly successful manner, there will be demanded the exercise of great sympathy, perseverance and care. Perhaps the greater number of such cases cannot obtain the benefits of the nurses of a hospital, which is especially equipped for the

* Read in the General Sessions, Missouri State Medical Association, Hannibal, May, 1910.

required treatment. In such an event the physician must exercise considerable ingenuity in the training of a member of the family to act as nurse. Yet with some tact and the application, in a systematic manner, of certain remedial measures, so much may be accomplished in many cases that the patient may feel the disease has really been checked, as she gains weight and strength, and the physician may regard his visits as being of material benefit.

The remedial measures to which we refer may be considered under the headings of general and local treatment. And before discussing medicinal applications, it may not be inopportune to speak of a phase of our subject, which, though not purely therapeutic, is of prime importance inasmuch as it concerns the morale of our patient. I refer to the belief that we should, at the very beginning and during our entire treatment, endeavor to inspire hope for recovery, or at least prevent a full realization of the true condition of the patient. In other words, a certain tone of deception is justifiable in our conduct; and by this I mean principally that every phase of improvement is to be emphasized. My reason for discussing this is, that recently such action has been roundly disapproved, with the argument that the true physician should avoid every semblance of deception in his treatment of all patients. All of which, academically considered, is very fine, and no doubt the clarion voice of Truth is sweet to the man of robust health, and 'tis easy to impress the patient with her folly in having acted on the advice of ignorant or meddling friends. To all such specious sophistries there can be but one reply: we are not doing that which is best for our patient. Indeed, perhaps our candor is prompted by our fear that, unless we reveal our knowledge, the patient may afterward proclaim afar that we did not correctly diagnose her ailment—that our ignorance permitted the disease to advance to a hopeless stage. But we can avoid such injustice by informing a responsible member of the family of the true condition of the disease, and of the benefits which our treatment will afford by prolonging life under the most favorable conditions and with the utmost of mitigation of suffering. At the same time we should urge the cooperation of the family in the maintenance of her hope and courage. I emphasize this latter consideration because of its real importance, since these patients yearn desperately for hope, and all arguments for absolutely truthful replies to the anxious queries of our patient can have no weight with the physician who has but once observed the average victim of this malady deprived of all hope, even when she rather fears that little hope is but self-deception.

General Treatment.—In the treatment of advanced cancer of the uterus the local condition engages our attention so completely that we are

prone to neglect the common hygienic measures; yet their importance cannot be estimated properly unless one has observed the many good results which these measures convey. We have received, at the St. Louis Skin and Cancer Hospital, many patients who suffered no inconvenience on the withdrawal of pain-relieving drugs after their admission, simply because the eliminative powers of the body were again exercised. That is, by favoring elimination through the skin, kidneys and intestines, of toxins absorbed from the local lesion, we prevent a certain amount of auto-intoxication and permit the regular absorption of food. We know of the vicious effect of morphia on metabolism, and by delaying its use we prevent the more rapid development of cachexia.

Our first consideration, then, must be the discussion of every phase of the disease with a responsible member of the family, so that by proper cooperation she may be relieved of arduous home duties; may secure abundance of physical and mental rest, with sufficient out-door exercise; and a rich, stimulating diet. Every detail must be emphasized, especially in the cases of the poorer patients, who usually respond promptly enough if we manifest the compelling interest.

If the gastrointestinal tract receives proper attention, we will have less need of ascribing many pains to possible metastases and reflex neuralgias. I believe the simple digestants, with nuxvomica and phenolphthalein, are of marked assistance. Alcoholic beverages or stimulants appear to be of no value.

With the urinary organs we must be ever on the alert for retention from pressure of the growth on the urethra, and, ere the catheter be used, we may find these patients can empty the bladder while in the standing posture. Urinary incontinence, in my experience, has been due to an overloaded bladder, except of course in fistulous cases. Where the catheter must be used, the flexible one is preferable, and its employment twice in the twenty-four hours is usually sufficient if the catheterization be followed by weak boric acid irrigation. The use of urinary antiseptics has not been found to be of benefit, and the stomach has been reserved for such medication as is compulsory.

Activity of the excretory glands of the skin should be stimulated by frequent hot baths, supplemented by massage and alcoholic rubbings. The latter are of particular value, when advancing weakness prevents sufficient exercise.

It is easy to understand how successful these measures may become in the promotion of constructive metabolism and the elimination of waste products in conjunction with proper local treatment; and the patient may assure us that she is greatly improved, and may believe, for long periods of time, that she is really cured. One such patient lived more than two years after Wertheim declared her case to be inoperable, and much of

this time she was forced to work hard for the support of her family. She visited the clinic of the St. Louis Skin and Cancer Hospital two or three times a week, finally dying from a kidney lesion due to infection from a uterovesical fistula.

Another feature of the general treatment that should engage our attention is the relief of pain, a symptom that appears comparatively late in the disease. Our endeavor should be to withhold the administration of morphia as long as possible, that the object to be attained by the above measures may not be defeated. The earlier pains yield to such drugs as phenacetin and aspirin, given intermittently, but the time arrives when these fail and then morphia must be given in sufficient doses to keep our patient in as much comfort as is possible.

Local Treatment.—Because of the condition of these patients, as commonly observed, their status, in our community, is a pitiable one. The hospitals, even the public institutions, do not want them; the members of their families often regard them with fear, while their friends are driven away by the awful odor which pervades the sick-chamber. Great indeed should be the praise of the noble men who have founded special hospitals for the care of such unfortunates, and worthy of praise he who adds any mite to our knowledge or control of such a repulsive disease.

The problems which now confront us are: to inhibit the necrosis and to control the hemorrhages. By inhibition of the necrosis we delay the absorption of toxins and we prevent the odor. By the control of hemorrhage we conserve the strength of our patient. By both measures we delay the advance of the disease and markedly contribute to the physical and mental comfort of the sufferer. This is much, when we consider that passive treatment of this class of cases virtually means leaving them to their fate.

Before considering in detail the conservative treatment I regard as most valuable, it may be proper to speak briefly of the more radical measures advocated by a few writers. Thus, Jayle¹ and Freund² advise, by abdominal section, the removal of as much as is possible of the involved tissues, without opening up the periuterine spaces, or separating adhesions—simply removing the uterus and adnexa and closing the vaginal vault so that the discharges may not escape through the vagina. In cases so far advanced that such closure is not possible Freund limits his work to ligation of the uterine arteries. I am unable to understand how such measures can be of benefit, for the vaginal tissues are so far involved in inoperable cases that we cannot hope for permanent union and must expect rapid destruction of the entire vaginal area, with the certainty of belief that the traumatism favors

more active invasion of the disease. I believe this latter point has been demonstrated very frequently in the speedy recurrences after late or incomplete operations on breast cases. While many writers (Lomer, Weindler, Ziemssen, Chrobak, Czerny and Fleischmann) report cases of palliative operations with freedom of recurrences after two years, A. Martin, whose experience has been very extensive, states that 70 per cent. of his cases died in the first year; one, only, living twenty-three months and one four and one-half years. It would seem that by extensive palliative operation we subject our patient to much needless risk, since we can perhaps accomplish all the benefit possible, without risk and without the fear that the traumatism has opened up new avenues of infection by injury to blood and lymph spaces. We are thus limited to a strictly vaginal treatment, with the object, first, of removing the necrotic masses; and, second, of inhibiting the recurrence of such masses and the recurrence of hemorrhages.

For removal of the grossly involved tissues all agree on the use of the curette, a procedure that will be considered when we speak of the treatment in detail. After this removal, various measures designed to control the active bleeding and to destroy the structures not reached by the curette, have been adopted. Of these measures, I have had some experience in the use of the zinc chlorid method of Marion Sims; the calcium carbide of Etheridge; heat, after the method of Byrne; and the acetone treatment of Gellhorn. The use of zinc chlorid and of calcium carbide have been abandoned in recent years, because of inability to determine the extent of their action in consequence of which uncertainty there was danger of causing much subsequent sloughing of the bladder or rectum. At one time it was believed that the calcium carbide had a selective action, exerting its influence alone on the diseased tissues. With proper selection of cases and much care in application I have observed clean scars following the final removal of the slough. But even in such cases its action was slow and attended by much foul discharge, while hemorrhage always occurred if we endeavored to hasten the process.

The use of the thermo-cautery and the hot iron has been more extensive and is yet the more common means of controlling active hemorrhage after the excochleation. Some operators endeavor to use the thermo-cautery for removal of the necrotic masses. Byrne of Brooklyn was first to use this method extensively, and his results appeared to have been wonderful; but we now better know the limitations of all such measures. Boldt and Chase strongly advocate this procedure, but make no extravagant claims for its efficacy. This treatment I have abandoned because of the many objections, which rather preclude its use even if one is equipped with the spe-

1. Presse med., 97, 1909.

2. Deutsch. med. Wchnschr., 49, December, 1909.

cial apparatus. In the first place, even though we are careful, it is extremely easy to burn the vaginal walls thereby causing prolonged suffering. Boldt avoids this by the use of a metal speculum which has hollow walls permitting a continuous flow of water to keep the instrument cooled. Then we cannot be sure of the extent of our cauterization, for, even in skilled hands, as Boldt says, the uterus has been perforated. Again, the eschar is not cast off for a period of one to two weeks during which time the odor is very foul, and on separation of the eschar the hemorrhage may be alarming. After expulsion of the eschar the cavity is treated daily or every second day with iodine or iodoform following a permanganate douche.

The operative treatment to which your attention is particularly directed seems to be superior to all others for the following reasons:

It may be applied at the home of the patient without special skill or dangerous instruments.

The entire operative field is at all times under full view of the operator.

There is no foul eschar because the cauterization is not deep, and, by virtue of this very fact, the protective wall of indurated tissue at the base of the growth is not disturbed, in consequence of which there is no danger of extension due to traumatism, and no danger of early hemorrhage.

Finally, the subsequent treatment is simple.

This treatment of the curetted area was introduced by Gellhorn, in 1906, at the St. Louis Skin and Cancer Hospital. In brief it consists of the methodical administration of pure acetone. He had observed that, in the preparation of tissues for microscopical study, the hardening process, preparatory to sectioning, was very rapidly accomplished when the specimen was placed in acetone for a short time. Its use, *intra vitam*, effects such contraction of the injured tissues that there results speedy closure of the vessels, and, further, this hardening inhibits cell-proliferation with its resulting speedy necrosis. The operative procedure is as follows:

The patient is prepared with the same care as for any operation. If she is dangerously weak, a general anesthetic is not given as often the pain may be controlled by the preliminary hypodermic of morphine and atropine, which is administered one-half hour before she reaches the table. She is placed in the lithotomy position and a careful examination will show how extensive our work may be carried with perfect safety. The perineum and vaginal walls are retracted, permitting full view of the growth. The largest spoon-curette is then plunged into the necrotic mass, which is speedily and boldly scooped out. This curette is particularly adapted to the work, for by its very size we can the more rapidly sweep to the base of the growth without the danger of perforation, which would attend the use of a

smaller instrument. Having removed the new tissues, which often completely fill the vagina, we pass on to the uterus and remove all the easily detachable masses. The uterus is usually easy of entrance because of the destruction of a portion or all of the cervix. Under the guidance of the palpating finger, introduced from time to time, we are informed of the extent of our advance. Thus no time is lost in removal of the blood, which, coming freely from the broken-down tissues, temporarily obscures the field. With such guidance we have avoided entering the bladder, rectum or peritoneal cavity. Formerly it was my custom to continue the process until the finger informed me that all indurated tissue had been removed; but during the past year the endeavor has been to remove only to the area of induration because of the belief, above expressed, that with the destruction of this barrier subsequent extension of the disease would be more rapid. As already stated, this is a serious objection to the use of heat and penetrating caustics, especially since no curative action can be expected.

Following this rapid excochleation a large piece of gauze is packed into the cavity, to remove the free blood and clots. On its removal we may note much oozing, but no attention is given to it as the acetone will check it. When the tampon is removed a Ferguson glass speculum of large size is introduced by making firm pressure on the perineum. This instrument is held tightly against the edges of the crater, and at once is filled or partially filled with pure acetone. The close contact against the top of the crater is essential to prevent escape of the acetone, for if the drug comes in contact with the vaginal walls there is produced a very painful irritation of a burning nature though no destruction of tissue. In a few moments the blood is coagulated and the bleeding ceases. The cavity is again cleaned and filled with acetone, which is not disturbed for a period of twenty or thirty minutes, during which time the anesthetic is withdrawn. The cavity is again mopped out and we usually tampon with a strip of gauze soaked in acetone. This is removed after twenty-four or thirty-six hours. The patient usually remains in bed two days.

The subsequent treatment is important. Three times a week at first and later twice a week, she is placed in the slightly elevated Trendelenburg position for the application of acetone. After one or two treatments, following the curettage, we may well be surprised to note the contraction of the cavity, with its firm, clean walls, which do not bleed save after rough manipulation. At times there is only a scanty discharge and the patient is free from odor. As the cavity contracts we are forced to use smaller specula.

One point must be emphasized: we must use care in applying the acetone lest it come in contact with the vaginal walls or the vulva. To avoid this needless pain we pour the drug through

a funnel and use only enough to fill the crater. Any burning is at once relieved by applying cold water.

Some patients feel well enough to neglect taking these treatments with regularity, in consequence of which neglect we have repeated the curettage for removal of the rapidly recurring growth.

To summarize the treatment it is urged that we should:

1. At all times stimulate the hope and courage of the patient.

2. Promote constructive metabolism by favoring elimination of waste products through the intestines, skin and kidneys; and by keeping the digestive tract in perfect condition.

3. Remove all necrotic masses with the eurette, without disturbing the basal tissue of the growth.

4. Apply acetone to the site of the growth at regular intervals, to prevent hemorrhage and to inhibit the necrosis.

DISCUSSION

DR. C. LESTER HALL, Kansas City: Many years ago I had a case in which the cancer originated in the squamous epithelium. It was too late for operation. With a dull eurette I removed all the diseased tissue I could and packed with iodoform. I removed it again and again, each time packing with iodoform, with the result that I finally had apparently removed the condition entirely. The result was the relief of pain, the bleeding was stopped and the patient enjoyed good health for months without ever having a return of the trouble in the remnant of the uterus. She finally died of a metastasis in the liver.

DR. H. C. CROWELL, Kansas City: In many ways I must agree with the position taken by the essayist, but in some perhaps I may not. Most of the patients who come to us late know perfectly well of what they are suffering. Yet, when they come to consult us as gynecologists or surgeons, they expect us to indicate to them what should be the proper thing to do. In offering such opinion we should take into consideration the location and the character of the carcinoma, and on that decide what is best to do. If we have an adenocarcinoma within the cervix, or a carcinoma of the body of the uterus, we may entertain an operation at a later time than we would if it were of the squamous type of carcinoma presenting in the vagina. In my own experience I have had but one case of the squamous type that I operated upon without recurrence. The great theme of discussion for years has been that we must educate the profession to make earlier diagnoses, and yet, while we have endeavored to accomplish something along these lines, we continue to see cases that have received local treatment for a long time prior to being submitted to operation, which treatment accomplished nothing but to tide them along a little nearer to death. I now seldom recommend a hysterectomy in which the cervix is extensively degenerated, or, more properly speaking, limited to the squamous epithelial surface. I prefer in such cases to advise the cutting away of the necrotic tissue and treating the surface by some form of cauterization or hardening agent, or by the use of acetone. By these means I have, I feel, accomplished more for the patient than I could have done by performing a hysterectomy. They have avoided a dangerous operation, an expensive operation, and one which can only give temporary results, recurrences occurring in every case unless detected earlier than is usual.

THE PREVENTION OF BLINDNESS*

JOHN GREEN, JR., M.D.

ST. LOUIS

When one begins to take an interest in blindness and the blind, his first emotion is that of pity at the sad plight of these unfortunates. Indeed, the legend "Pity the Blind," which the sightless beggar carries on his breast, expresses very accurately the feeling of his sighted friend. The latter is saddened at the thought of the many deprivations which the absence of sight must entail. Here is a catastrophe, grievous enough, to be sure, but after all inevitable, and hence to be borne with all possible resignation and fortitude.

What will be his surprise to learn that 40 per cent. of all blindness is preventable; that forty out of 100, that four out of every ten blind persons need not have been blind! It is estimated that there are 2,000,000 sightless beings in the world. Eight hundred thousand of these are needlessly blind. The word "inevitable," as a qualifying adjective, does not apply to nearly one-half of the blindness that exists to-day. Such a state of affairs is certainly discreditable to an age whose motto is prevention, and it is astonishing that a movement for the "prevention of unnecessary blindness" is only to-day beginning to become general.

Principal among the causes of preventable blindness is that due to a highly contagious inflammation of the eyes in new-born infants, the so-called ophthalmia neonatorum. So far the campaign of prevention has been largely directed against this disease and for the following reasons: First, 25 per cent. of preventable blindness (10 per cent. of all blindness) is attributable to this disease. Second, the cause of the disease is known. Third, the disease can almost certainly be prevented by a simple solution (1 per cent. silver nitrate solution) dropped into the infant's eyes at the time of birth. Fourth, should preventive drops not have been used and the disease develop, it can usually be cured without damage to sight by prompt and energetic treatment.

To Dr. Lucien Howe of Buffalo, N. Y., should be accorded the honor of pioneer effort to prevent blindness from this disease. Some twenty years ago he was instrumental in securing the passage in New York state of a law requiring a midwife, nurse, or other attendant, to report to a legally registered physician any case of redness or discharge from the eyes of new-born infants. Similar laws have been enacted in many states, among them Missouri. Though excellent in intent, these laws have failed to reduce materially the proportion of blindness from ophthalmia neonatorum, for various reasons which cannot be entered into here. The next step was taken by

* Read at the meeting of the State Conference of Charities and Corrections, November, 1910.

the American Medical Association (at the instance of Dr. F. Park Lewis of Buffalo) by the formation of a committee on ophthalmia neonatorum, which conducted a country-wide investigation of blindness from this disease and succeeded in bringing the whole question forcibly to the attention of the physicians.

It soon became apparent, however, that the physicians, unsupported by an aroused public sentiment based on a full understanding of the situation, could accomplish little. What was needed was a campaign of education carried into the homes. The means to this end have been various. In New York the New York Association for the Blind appointed a committee on the prevention of blindness, composed of laymen and physicians. By educational, legislative and cooperative methods, this committee has already accomplished much good and has blazed the way for similar endeavors in other states. The educational work has been carried on by means of the publication and distribution of literature, public speaking, photographic exhibits, lantern slides, and through magazine articles and the daily press. Through the efforts of the committee an appropriation of \$5,000 was granted by the New York state legislature to enable the State Commissioner of Health to distribute free to physicians and midwives ampules containing the "preventive drops." An amendment to the public health law reducing the period for notification of births from ten days to thirty-six hours was also granted by the legislature. As the notification of birth issued by the New York state department of health has printed on it the question, "What preventive for ophthalmia neonatorum did you use? If none, state the reason therefor," it was believed that should the disease be present and no preventive measures have been taken, by calling the attention of the attending physician or midwife to this specification in the notification within thirty-six hours after birth, there might yet be time to save the sight of the child.

In Ohio the State Commission for the Blind (established 1908) recently conducted "a publicity campaign for the prevention of early blindness" by means of press notices, and a lecture tour covering many counties in different parts of the state. Money has been appropriated for the free distribution of preventive drops. The state and local boards of health have assisted in the educational publicity. In Massachusetts an advisory committee on prevention of blindness, appointed by the State Commission for the Blind, and representative of medical, charitable and health organizations, is actively engaged in promoting preventive measures. A law making inflammation of the eyes of the new-born reportable to boards of health, and naming the physician as finable for failure to report, has enabled the State Board of Health to appeal to the self inter-

est of the practitioner. Twenty-five hundred dollars was recently appropriated for the free distribution of preventive drops. The investigations of the Social Service Department of the Massachusetts Charitable Eye and Ear Infirmary have thrown much light on many social problems connected with these sad cases.

Through the instrumentality of Baltimore physicians the Maryland legislature, in 1894, passed a law similar to the "Howe" law, under the operation of which six or eight midwives in Baltimore have been prosecuted and convicted. Maryland's experience indicates that the failure of the law in other states—hardly any convictions having been secured elsewhere—must be ascribed partly to apathy on the part of parents who shrink from the publicity which a prosecution necessarily entails, and partly to the unwillingness of physicians, cognizant of the facts, to appear as witnesses in a prosecution of this nature.

The knowledge of the havoc wrought by this terrible disease, which plunges into life-long darkness little boys and girls at the threshold of life, will insure the aid and active cooperation of all humane citizens in the campaign of prevention. To others, unmoved by sentimental considerations, a realization of the economic waste of needless blindness will prove more effective as an argument in favor of preventive measures. To illustrate: in the New York School for the Blind, Batavia, the cost of educating and maintaining a blind pupil is \$407.03 a year. Contrast this with the per capita cost per year—\$30—in a school for the seeing. The total annual excess cost of needless blindness from ophthalmia neonatorum to the state of New York is \$31,000. In Ohio the excess cost of maintenance and education of those blind from ophthalmia neonatorum is nearly \$20,000 annually.

To the workers in this field it became increasingly evident that the field of operation must be widened to include the whole country, as the reports from schools for the blind indicated that the scourge was everywhere about equally prevalent. Accordingly the officials of the Russell Sage Foundation were prevailed on to establish a committee on the prevention of blindness, the purpose of which was to arouse interest in different parts of the country and to aid in the establishment of state societies for the prevention of blindness. The secretary of this committee, Mr. Samuel E. Eliot, spent last June in organizing societies in Kentucky, Arkansas and Missouri, and is now preparing to go to every state in the Union with this end in view. Once the states are organized, it is proposed to establish a great national association for the purpose of welding together the local bodies and rendering their activities more efficient.

So far I have spoken of one cause of preventable blindness, viz., that due to ophthalmia neon-

atorum. I now propose to consider, very briefly, some of the other causes.

Accidents of various sorts account for much blindness (13 per cent. of all the blind in Massachusetts are so from accidental causes). The bursting water glass, the flying fragment of iron or steel, the premature explosion, are frequent causes of irreparable damage to eyes. Frequently the blame lies wholly with the victim who, through carelessness, has failed to take necessary precautions. We cannot hope to abolish all blindness from such causes, but much may be prevented by intelligent cooperation between employers, insurance companies and labor unions. Factories and foundries may well follow the lead of a subsidiary of the United States Steel Company, located in Worcester, Mass., by establishing a "department of safety" which investigates all accidents and works out changes to prevent repetition. Workmen should be forbidden to "pick at" foreign bodies lodged on the cornea of a fellow-workman's eye. The favorite instrument for this purpose is a dirty sharpened nail which frequently carries infection to the eye at the same time that it removes the foreign body. Mothers should be warned of the danger of letting their children play with sharp-pointed scissors or open pocket-knives. The favorite pastime of the small boy—mumble-the-peg—has often resulted in disaster to one eye and sometimes total blindness through the subsequent development of sympathetic disease. The Fourth of July, still unsafe and insane in many localities despite the movement toward safety and sanity, has witnessed the needless destruction of countless eyes.

"Granular lids," "red-sore eyes," or trachoma is a frequent cause of blindness in Egypt, and, to a less extent, in this country. I am informed by Mr. Eliot that a large number of the inmates of the Arkansas Blind Asylum are blind from this cause. The people must be taught to appreciate the serious nature of this insidious disease which, extending over a period of years, gradually eclipses the victim's sight.

The importance of periodic examinations and testing of school children's eyes cannot be overestimated. Many defects, such as unsuspected blindness of one eye, squint, lowered vision from refractive error, high grade near-sightedness, phlyctenular disease, granulated lids, etc., will be brought to light. A little care at this period may save untold misery from partial or total loss of sight in later years.

I can only allude, in passing, to certain less frequent causes of preventable blindness, such as the sequelæ of some of the infectious diseases, optic atrophy from drinking wood alcohol, and syphilis, hereditary and acquired.

To what an extent the quack eye doctors, who fill the advertising pages of the less reputable magazines and daily papers with glowing accounts of their marvelous skill, are responsible

for unnecessary blindness it is impossible to say. With bland assurance they will diagnosticate (?) any eye disease from the filled-in chart of signs and symptoms returned by the gullible sufferer, and "guarantee" a cure at so much per month (medicines furnished free!). The victims of these wretches are usually those whose sight is gradually failing from a chronic ocular disease, or those who have become irremediably blind from atrophy of the optic nerve. Too often the deluded sufferer wastes months and months of precious time in the vain hope of ultimate improvement and at last seeks competent advice only to find that the time has passed when the progress of the disease toward total blindness can be checked.

An untold number of people are needlessly blind because they place their faith in the assurances of an ignorant optician. The middle-aged man finds that his distant and near vision is less acute than formerly. What more natural than the assumption that old sight is coming on and that he needs a pair of reading glasses? He has, to be sure, some vague discomfort about the eyes and has occasionally seen many colored rings surrounding the lamp flame. The optician is consulted, the reading glasses are procured and all seems well. Soon, however, the optician is called on to "change the lenses," because the first pair "did not help." In the meantime the rainbow rings are seen more frequently, and the ocular discomfort often amounts to pain. Another change of glasses is tried, with equally unsatisfactory results. Finally, after months or even years of diminishing vision, an oculist is finally consulted and now the true condition is first revealed. The man has been suffering from chronic glaucoma, an insidious disease only diagnosticable by refined methods. All but direct vision has been abolished, and it is only a question of time when that, too, will go.

Cases similar to the above are within the experience of every oculist. By general consent the optician has been allowed to encroach on the field of medicine to the extent of testing eyes for glasses. Here we have the extraordinary spectacle of a tradesman, trained (God save the mark!) in an "optical college" from which, after six weeks, he is graduated with the high-sounding title of "Doctor of Optics" or "Doctor of Optometry" to practice on the most delicate and wonderful organ of the human economy. Wholly devoid of medical knowledge, he has the marvelous assurance to undertake the care of ailing eyes, for many eyes which need lenses are "sick" eyes. The only wonder is that more damage is not done.

One word with reference to the movement for the prevention of blindness in Missouri. The Missouri Association for the Prevention of Blindness was organized in St. Louis last June, adopted a temporary constitution and by-laws,

and elected temporary officers. A little folder, entitled "Close your Eyes. Try to Imagine what it Means to be Blind," was prepared by one of our most energetic members, Mr. R. J. Newton. With the kind permission of the State Antituberculosis Society, several thousand of these folders were placed in the tuberculosis exhibit car which made a tour of the state. It is now contemplated to distribute 100,000 of these folders among the school children of St. Louis. At the request of the officers the St. Louis Sunday *Republic* published a full page illustrated article on Prevention of Blindness.

With the permanent organization effected we are ready to grapple with some of the problems of prevention in Missouri. It is perhaps too early to outline in detail a plan of campaign. The problems are much the same in Missouri as elsewhere and doubtless our efforts will be mainly along educational and legislative lines. To carry into effect even a limited program, we are sorely in need of a large membership and a not-too-small treasury. We appeal to every humane citizen of Missouri to join with us in this work. We have purposely made our dues low so that no one need hesitate to join us on the score of expense.

If there be any one whose heart has not been touched by the pitiful plight of the sightless, let him listen to the following sentences written by that wonderful deaf-blind girl, Helen Keller:

"Try to realize what blindness means to those whose joyous activity is stricken into inactivity.

"It is to live long, long days, and life is made up of days. It is to live immured, baffled, impotent, all God's world shut out. It is to sit helpless, defrauded, while your spirit strains and tugs at its fetters, and your shoulders ache for the burden they are denied—the rightful burden of labor."

625 Metropolitan Building.

ANTIVACCINATIONISTS

In St. Louis recently a spasm of horror gripped the citizens when the report was circulated through sensational newspaper accounts that several school children had died from tetanus contracted from the vaccine virus. Investigation proved that the disease did not originate in the virus and also that at least one of the children did not have tetanus at all but died from meningitis due to a chronic ear trouble.

The agitation against vaccination was precipitated by a few persons who have been left far behind in these rapidly changing times and, suddenly awaking, they imagine things are as they were when they fell asleep. But the opportunity

was a rare one for a quick jump into the public eye and was worked to its last gasp by doctor, lawyer and layman.

While the noisy—and noisome—asseverations of the antivaccinationists were given free rein in the news columns of the daily press, most of the newspapers viewed the situation sanely and in the light of present-day knowledge of the benefits accruing from vaccinal protection against small-pox; the following editorial from the *Republic* under the caption "The 'Antis' Resolve" being comprehensive:

In view of the appointment of a committee of antivaccinationists to make things as uncomfortable as possible for the Board of Education and all others in any degree responsible for vaccination in the public schools, we desire to recall two things which everybody ought to know.

The treatment of vaccination as if it were yet in the experimental stage is wholly unwarrantable. Where is there a man of international reputation in medicine who opposes it? What have the Oslers, the Murphys, the Senns, the Da Costas, the Peppers—to take at random a handful of eminent American physicians and surgeons—said of its efficacy? Where have they stood as to the enforcement of its practice as a common-sense measure of prophylaxis? Its opponents, when "famed," are such for their opposition to vaccination. Their synagogue gathers in the sensation-monger and the honest but obscure doubter.

Along with these types of physician goes the kind of lawyer that leaps into light with the discovery that human liberty is invaded by compulsory vaccination. It is pretty late in the day to remark that Rousseau's "social contract" theory—according to which the individual bargained with society, and surrendered his natal rights or not, as he pleased—is pretty well played out; but even Rousseau saw clearly that the social contract, once entered upon involves a certain substitution of the will of society for that of the individual, and begins with the right of society to protect itself.

If the antivaccinationists would only learn a little medicine and a little law we should get on famously.

The *Republic's* vaticination concerning the opponents of vaccination meets confirmation almost with its utterance. In another column we publish some information concerning the methods that one of the "famed" opponents has pursued in his efforts to drum up business: another of the "famed" opponents is not a graduate in medicine but was admitted to practice through the easy portal of an examination at a time when any tyro with a modicum of medical knowledge could secure a certificate; and still another of these "famed" opponents has approached within perilous proximity to the charge of issuing a false certificate.

Do the people want such persons to "protect" them against invasion of their personal liberty?

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

DECEMBER, 1910.

EDITORIALS

THE ST. LOUIS MEETING OF THE NATIONAL ACADEMY OF SCIENCES

From the eighth to the tenth of November, the National Academy of Sciences met for the first time in its history in St. Louis. The autumn meetings of the Academy are never largely attended; but a dozen out of the total membership of a little over one hundred of the most eminent men of science of the country were present at the meeting, which considered a program of general scientific interest, containing important additions to human knowledge. The privilege of the meetings, which were open to the public, was increased by a provision each day for a number of local investigators to meet the eminent participants at luncheon and to join them in afternoon excursions, showing in their best light the physical investigations being carried on at Washington University, the simple coagulation process by which the muddy and germ-laden water of the Mississippi is converted into a clear and practically germ-free drinking fluid, and the equally efficient conversion of the solar energy stored in coal into electric light and power at the enormous model plant of the Union Electric Company.

The meetings were held at the Missouri Botanical Garden, in the laboratories and work of which the visiting specialists in other fields found interest and in which biological demonstrations were prepared for them. Though the members of the Academy who are leaders in the rapidly developing field of scientific research in medicine, Flexner, Smith and Welch, were unable to attend the meeting, recent additions to workers in this field of investigation in St. Louis were brought in close personal touch with the visitors.

To local scientific effort, almost always concentrated on one or a few lines of research, a national gathering, representative of all sciences, is always stimulating and the coming to St. Louis of the most exclusively distinguished organization of American men of science can but stimulate and help cultivation of the whole field of scientific research in the city and state honored by the meeting. In this, medical research will surely share.

STATE CONFERENCE OF CHARITIES AND CORRECTIONS

The State Conference of Charities and Corrections is a voluntary organization comprising in its membership the heads of state institutions for the care of the indigent sick, insane, defective and criminal and ought to be an influential body in directing the proper conduct of the affairs of these institutions. We publish in another column a synopsis of the proceedings of the last meeting held at Chillicothe in November, for we are sure the organized medical profession of the state should be informed with the work of this body.

The conference brings together workers in various fields of social service; the leading spirits in voluntary charitable and social societies and the amateur philanthropist meeting the practical and seasoned worker, the institution superintendents and other officials in charge of the eleemosynary poor, so that strength and directness to the work as a whole result from this annual comingling. The work of the conference, however, can be made vastly more effective if it were intimately identified with the medical profession, which is, more than any other, a profession of public service; for the organized medical profession is earnestly engaged in furthering many of the reforms which the conference is endeavoring to accomplish.

DOCTOR N. A. FOSTER HONORED

The physicians of Ralls and Marion counties held a joint meeting on October 20 to do honor to their colleague Dr. N. A. Foster of Center, on the occasion of the fiftieth anniversary of his professional life.

Such a demonstration of the confidence, respect and love of his fellow-practitioners and fellow-citizens is an inspiration and gratification to one who has breasted the myriad experiences that crowd fifty years of constant attention on the sick, and in the radiance and effulgence thus shed on a life well spent the hardships of the past and the ingratitude of the few fade into dim remembrances of the long ago.

LADIES' AUXILIARY TO THE COUNTY SOCIETY

Macon County Medical Society has found a way of strengthening the bonds of friendship among the physicians in the county by bringing the wives of the members together at the monthly meetings, the wives forming a ladies' auxiliary society. The plan has been in force for over a year and has succeeded beyond expectations in drawing the members to the meetings and in pro-

moting a strong feeling of good fellowship. It is a splendid way to bring the wives of the doctors in the county together and undoubtedly serves to keep up the interest of the members in the work of the society.

RESULT OF EXAMINATION OF APPLICANTS TO PRACTICE, SEPT. 20, 1910

Colleges	Number Examined	Number Passed	Number Failed	Per cent of Failure
American Medical College, St. Louis	2	0	2	100
Barnes Medical College.....	5	1	4	80
Chicago College of Medicine & Surgery	1	1	0	0
Columbia University College P & S	1	1	0	0
Drake University College of Medicine	1	1	0	0
Ensworth Medical College.....	5	2	3	60
Homeopathic Medical College, St. Louis	1	0	1	100
Howard University, Washington, D. C.	1	1	0	0
Johns Hopkins University.....	2	2	0	0
Kansas City Hahnemann Medical.	1	1	0	0
Kansas Medical College.....	1	1	0	0
Louisville Medical College.....	1	1	0	0
Louisville University	9	7	2	22.2
Meharry Medical College.....	1	0	1	100
Northwestern University	1	1	0	0
Physicians & Surgeons, St. Louis.15	10	5	5	33.3
Rush Medical College.....	1	1	0	0
St. Louis University.....	1	1	0	0
Starling Medical, Columbus, Ohio.	1	1	0	0
University Medical College, Kansas City	3	1	2	66.6
University of Kansas.....	2	2	0	0
University of Texas.....	1	1	0	0
Vanderbilt University.....	1	1	0	0
	58	38	20	34.5

CORRESPONDENCE

FORTY PER CENT: COMMISSION

St. Louis, Nov. 6, 1910.

To the Editor: I have forwarded to you a letter that came into my hands, written by Dr. L. C. McElwee of this city, which, I think, should be brought to the attention of the members of the State Association.

I am informed by the Secretary of the St. Louis Medical Society that Dr. McElwee is not a member of that body; but I believe that justice to the principles of honor the profession has ever upheld demands that his letter be made a matter of public record.

Very respectfully,
R. EMMET KANE, M.D.

The letter referred to by Dr. Kane is incorporated in an affidavit which follows:

State of Missouri)
City of St. Louis) ss

On this 14th day of November, 1910, personally appeared before me, a Notary Public, within and for the above mentioned City and State,, of lawful age, of the City of St. Louis, Missouri, and who being by me duly sworn declares, and states, as follows:

In the early part of May, 1910, I answered an advertisement in one of the St. Louis Sunday papers, and in reply to my answer to this advertisement, I received the following letter:

"5/10/10"

"Dear Sir:

Think you are the man I'm looking for. My scheme concerns my specialty—you are out nothing and share in the profits (40%). Call and see me any day in "hours" if you can, otherwise telephone and I'll put you next.

Respectfully
(Signed) L. C. McELWEE."

Dr. L. C. McElwee was not known to me personally. After receiving this letter I called over the telephone, and some lady answered it, and I asked for Dr. L. C. McElwee, and then some man answered the phone. I asked, "Is this Dr. L. C. McElwee." He answered, "This is Dr. L. C. McElwee." He asked me to call and he would explain what he had, and I asked him if he could not give me some information over the phone, and if it interested me, I would call. He then asked me what class of trade I called on, and I told him the retail druggists, outside of St. Louis. He said, he believed I was the man he was looking for, and told me that the thought that I could get in touch with people needing some kind of operation performed, and could put him in communication with them, he would divide up the profits with me. And he said "Others are doing it, and I don't see why I can't," and urged me to call on him.

After consulting with a friend of mine, a doctor in this city, I did not call on him.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal, this 14th day of November, 1910.

..... (seal)
Subscribed and sworn to before me this 14th day of November, A. D., 1910. My term expires Nov. 28, 1911.

(Signed) ANNA H. PFEIFFER,
(SEAL) Notary Public.

COUNTY SOCIETY NOTES

STATE CONFERENCE OF CHARITIES AND CORRECTIONS

For the first time in the eleven years' history of the State Conference of Charities and Correction in Missouri, affiliated associations have met together. This year the State Medical Association was represented, as was the St. Louis Society for Moral and Sanitary Prophylaxis, and the Missonri Association for the Relief and Control of Tuberculosis. The temporary organization of the Missonri Association for the Prevention of Blindness held its meeting in connection with the State Conference of Charities and Correction, and perfected a permanent organization by the election of a board of twenty-six directors; one chosen from each of the congressional districts and ten at large. This board of directors was authorized to elect the

officers of the association and to transact the regular business of the association between annual meetings.

Among the subjects that seemed of greatest immediate importance, in addition to the work for the prevention of tuberculosis and blindness, was the care and further segregation of feeble-minded and epileptic persons. In his paper on the outdoor pauper population in the counties of this state, Prof. Thomas J. Riley, director of the St. Louis School of Social Economy, showed that about fifteen out of every 100 cases of such relief were directly traceable to feeble-mindedness. He recited a large number of cases in which these feeble-minded people were allowed to reproduce after their kind, and to have practiced the greatest immoralities through their irresponsibility. The same urgent need was pointed out by Dr. G. Wilse Robinson, retiring president of the State Conference, as well as by a number of other speakers on the program. Accordingly, the Committee on Social Legislation will have introduced into the next legislature a bill providing for the separation of the feeble-minded and the epileptic now housed in the same institution at Marshall, hoping by this means to secure larger accommodations for each class.

Dr. Walter H. Fuchs, speaking for the St. Louis Society for Sanitary and Moral Prophylaxis on the subject of "Sex Hygiene, and Dr. Alice Hamilton of Chicago on the "Nursing of Paupers," presented to the conference what might very well become classical productions of their respective subjects. Mr. Robert J. Newton, secretary of the Municipal Tuberculosis Commission, St. Louis; Miss Winifred Doyle, assistant secretary of the State Association for the Relief and Control of Tuberculosis; Dr. William Porter, representing the State Sanatorium, and Dr. George Homan of St. Louis carried forward the program of anti-tuberculosis at this their first meeting in connection with the State Conference in a way that promises large returns.

At its meeting one year ago the State Conference organized a number of standing committees, among which may be noted especially the Committee on the Insane, Epileptic and Feeble-Minded, consisting of the superintendents of the state institutions for the care of these classes and two other physicians; the Committee on Work for Children and the Committee on Social Legislation. These committees had carried forward their respective work throughout the year, and, especially the latter two, had unusually successful sessions of the conference. The conference is organized with the same standing committees for 1911, and the addition of one on Public Health and another on Church and Social Service.

Prof. Thomas J. Riley was elected president and Mr. W. T. Cross, secretary of the State Board of Charities and Correction, was elected secretary. The next meeting will be held in Kansas City, Nov. 12, 1911.

MISSOURI ASSOCIATION FOR THE PREVENTION OF BLINDNESS

The Missouri Association for the Prevention of Blindness was called to order by Dr. John Green, Jr., Thursday morning, November 10, at Elk's Hotel, Chillicothe.

Dr. Green gave a talk on the necessity for such an organization in Missouri, and the history of the temporary organization up to date.

Judge W. S. Curtis then reported for the legislative committee, reading the bill to be introduced in the coming legislature, asking for amendments to Sections 8321, 8322 and 8323 of Chapter 2 of the revised statutes relating to midwifery and children's eyes, and enacting in lieu thereof the proposed eight sections.

Mr. Newton moved that this committee continue its work and be authorized to prepare the bill in such

shape as to be ready for introduction in the general assembly.

The Committee on Nominations was then called on to report.

The following persons were suggested as directors of the association to represent the following congressional districts:

First Congressional District—Dr. A. B. Miller, Macon City, Macon County.

Second Congressional District—Dr. J. C. Shelton, Chillicothe, Livingston County.

Third Congressional District—E. G. McGraugh, Richmond, Ray County.

Fourth Congressional District—Mrs. W. K. Janes, 205 Farron Street, St. Joseph.

Fifth Congressional District—Jacob Billikopf, Kansas City.

Sixth Congressional District—Mr. Lampkin, Clinton, Henry County.

Seventh Congressional District—Professor Carrington, Springfield, Greene County.

Eighth Congressional District—Mrs. W. McNab Miller, Columbia, Boone County.

Ninth Congressional District—Dr. J. F. Harrison, Mexico, Audrian County.

Thirteenth Congressional District—Mrs. Theodore Fischer, Farmington, St. Francois County.

Fourteenth Congressional District—Mr. Darmont, Cape Girardeau.

Fifteenth Congressional District—Dr. O. R. Rooks, Nevada, assistant physician, State Hospital No. 3.

Sixteenth Congressional District—Homer Davenport, Lebanon, Laclede County.

The following directors at large were also elected: Dr. John Green, Jr., Dr. Clarence Loeb, Dr. Fred Taussig, Mr. S. Green, Prof. T. J. Riley, Judge W. S. Curtis, Mr. Robert J. Newton, Rev. George R. Dodson, Prof. George Knox, Mrs. W. S. Curtis, Mr. J. C. Janes, Mr. R. N. Baldwin.

The secretary read a telegram from Mr. Samuel Eliot, stating that while every effort was made to have the exhibit reach the conference in time, it was unfortunately held up in Montreal, Canada, on account of some difficulty with the custom house.

The association leaflet on the prevention of blindness was distributed and requests have also been made that persons who have not as yet joined the association do so, and that all effort be made on the part of the members of the association to get as large a membership from all over the state as possible.

The members were then requested to attend the Section on Public Health, especially the papers pertaining to the prevention of blindness and the discussion on the same subject.

NORTH MISSOURI MEDICAL ASSOCIATION

The North Missouri Medical Association met at Kirksville, Missouri, in semi-annual session at 10 o'clock a. m. October 27. In the absence of Dr. Butler, chairman of Committee of Arrangements, the meeting was called to order by Dr. J. W. Martin. The invocation was pronounced by Rev. W. C. Templeton, and was followed by an address of welcome by Hon. J. M. McCall, Mayor of Kirksville.

The chairman introduced Dr. E. C. Callison, president-elect, who took charge of the meeting.

The president read a letter from Dr. Morey, recording secretary, stating he would not be present, whereupon Dr. Martin was appointed secretary pro tem.

The first paper on the program was by Dr. B. B. Parrish, entitled "Transposition of the Appendix a Factor in Intestinal-Obstruction." Discussed by Drs. Clapp, Nifong, Quinn, Moss, Bradley and Jurgens; and closed by Dr. Parrish.

The next paper was by Dr. L. O. Nichol, on "Gall Stones from the Standpoint of the General Practi-

tioner." This was followed by a paper by Dr. C. B. Clapp, "Diagnosis of Gall Stones." Both papers were discussed by Drs. Unterberg, Moss, Nifong, Pipkin, and the discussion closed by Drs. Nichol and Clapp.

The society adjourned for dinner and an automobile drive about the city.

At 2 p. m., the society resumed the program and Dr. Callison read a paper on "Hydrocephalus," with presentation of the case. Discussed by Drs. Unterberg, Hight, Jurgens, and C. E. Ruth, a visitor from Ponce, Porto Rico; Dr. Callison closed the discussion.

In the absence of Dr. T. R. Butler, his paper, "Cross Eyes," was read by Dr. Martin and the case presented; discussed by Drs. Callison and Zeber.

Dr. Moss offered the following resolution which was unanimously adopted:

Resolved, That the North Missouri Medical Association, feeling a deep interest in higher education, gives its hearty endorsement of constitutional amendment No. 11. We believe the passage of this amendment will open the way for our State University to take her rightful position among the great universities of this country. We therefore urge all the physicians of this association to give some personal help to this amendment on the day of election.

Dr. B. B. Parrish offered the following resolutions which were adopted:

WHEREAS, The use of benzoate of soda and its salts in the preservation of food products is deleterious to the health of the people, be it

Resolved, By the North Missouri Medical Association in session in the City of Kirksville, that we condemn the use of all chemicals in preserving food products.

WHEREAS, The statutes of the State of Missouri provide that the State University shall maintain a medical department for the instruction of students in all branches of medicine and surgery, and

WHEREAS, The State University has discontinued instruction of students in the clinical branches; therefore be it

Resolved, That the North Missouri Medical Association petition the Curators of the Missouri State University to establish proper facilities for the instruction and graduation of its medical students so that the State University shall be brought up to the high standard provided for it by the statutes.

Dr. Frank Nifong read a paper, "Significance of Abdominal Pain and the Maladministration of Opium." Discussed by Drs. Thornton, Hight and Nichol; closed by Dr. Nifong.

Dr. G. W. Davis of Kansas City, read a paper on "Vesiculitis."

Dr. H. Unterberg of St. Louis read a paper, "Injection of Nerves to Overcome Certain Spasticity in Poliomyelitis;" discussed by Drs. Moss and Rowland; closed by Dr. Unterberg.

Moved by Dr. Moss that when this society adjourns it adjourn to meet in Columbia on the third Thursday and Friday in June, 1911; carried.

Moved by Dr. Moss that we extend to the people and physicians of Kirksville and the Elks Club our sincere thanks for their hospitality and kindness; carried.

The following names were proposed for membership by the Board of Censors, with recommendation for election: Drs. Boyd, Hight, Queen City; W. E. Bradley, Ethel; F. G. Nifong, Columbia; B. B. Parrish, E. S. Quinn and J. W. Martin, Kirksville. By motion all were duly received as members.

The Society discussed methods for increasing interest among the members of the profession in making up the regular programs.

Dr. E. J. Goodwin, Editor of the STATE JOURNAL, requested a copy of the minutes, which was promised.

Adjourned to meet at Normal Chapel at 8 o'clock.

The meeting at the State Normal School building from 8 to 9:30 was an open session; a good audience was present. Two musical numbers rendered by a sextette of students were much appreciated.

After a few preliminary remarks, President Kirk introduced Dr. Woodson Moss of Columbia, who delivered an interesting lecture on the history and efficiency of vaccination. This was followed by an entertaining address by Dr. Houwink of St. Louis, on the methods of operation and care of vaccination and the complications that may attend it.

After a two hours smoker at the Elks Club rooms, society adjourned.

Thus closed one of the most profitable, interesting and best attended meetings in the history of the North Missouri Medical Society.

J. W. MARTIN, Secretary pro tem.

SOUTHEAST MISSOURI MEDICAL ASSOCIATION

The Southeast Missouri Medical Association held its thirty-fourth semi-annual session at Ilmo, October 18-20, Dr. O. Haley presiding. About thirty members were in attendance. Councilor reports were received from the following:

Bollinger County: Dr. Witmer reported that medical matters in his district were in a normal condition, there having been no unusual out-break of any kind, excepting that there were probably more cases of malaria than customary at this season. A few cases of measles and smallpox have been reported, but no general spread of these diseases occurred.

Iron County: Dr. Marshall reported a few cases of smallpox and scarlet fever, which had been properly controlled by quarantine, the county board of health being very active in guarding the health of the community. He believes the state should make provision for the care of tuberculosis in the advanced stage since the Sanitarium at Mt. Vernon cannot care for such cases. The physicians in his district, he said, are calling on the state bacteriologist more frequently than in the past for assistance in diagnosis of typhoid fever, and he reports the profession working harmoniously and actively in all directions tending toward the protection of the public health.

Madison County: Dr. Slaughter reports the profession in his district in harmonious activity. Dr. Dwyer of St. Louis has recently moved to Madison county. Dr. John K. Smith has left the county and is located at Columbia. Dr. Slaughter has moved to Portageville. There have been an unusual number of cases of malaria, seemingly more acute than usual, and a few cases of measles and smallpox were reported.

Stoddard County: Dr. John Ashley reported a general improvement in health conditions in the past ten years, due to the better drainage facilities. County authorities are very negligent, nevertheless the spread of diphtheria and smallpox, of which they had a few cases at Ardola, had not become general. The stork has kept well ahead of the reaper, the births being double the number of deaths.

Scott County: Dr. Frazer reported health conditions good, and, as in Stoddard county, the birth rate was about double the mortality. Malaria has been quite persistent and seemingly more difficult to eradicate than in past years.

Cape Girardeau County: Dr. Henderson reported that the medical profession was well organized and working harmoniously. The physicians have not been busy although in the early part of the year an epidemic of scarletina caused some uneasiness notwithstanding that the attacks were of a mild character. Several cases of smallpox had developed, but the spread of the disease was effectively prevented. Tuberculosis is the most prevalent disease and no measures have been

taken to guard against its spreading. A number of cases have been sent to the State Sanatorium all of which have improved and the patients have been instructed how to care for themselves and protect their families and associates.

The following papers were read: "Report of the Year's Progress in Diseases of the Eye, Ear, Nose and Throat," by Dr. W. L. Cunningham. "The Physician as a Witness," by Dr. John Ashley. "Progress of the Science and Practice of Medicine for the Past Thirty Years," by Dr. J. M. Finney.

The following resolutions on the death of Dr. John A. Atkisson were adopted:

WHEREAS, All wise Providence has removed from our presence in the past few months a member of our society, Dr. J. A. Atkisson, of Morehouse, a worthy and faithful member of the society whose work had always shown that he had the best interest of the medical profession at heart; therefore be it

Resolved, That the Southeast Missouri Medical Association deplore his untimely death, and feel that the medical profession and the community at large have sustained an irreparable loss. And be it further

Resolved, That these resolutions be spread upon our minutes and a copy sent to his bereaved family.

At the afternoon session Dr. Bondurant reported a number of cases that caused considerable discussion.

Dr. H. L. Reid had a paper on the "Report of the Year's Progress in Surgery."

Dr. Goodwin, secretary and editor of the JOURNAL made a short talk, and invited the association to use the JOURNAL as much as possible for the publication of papers read at the meetings, and for announcements of matters of interest to the profession. He complimented the association on its splendid organization and the deep interest that is manifested by its members in the progress of medical affairs.

In the evening a banquet was tendered the association by the local members and citizens of Illmo. This was a very enjoyable occasion, there being some fifty guests at the table, and closed one of the most interesting meetings of the organization.

The next meeting will be held at Dexter, the time to be announced later.

W. S. HUTTON, M.D., Secretary.

SOUTHWEST MISSOURI MEDICAL ASSOCIATION

The fall meeting of the Southwest Missouri Medical Association convened at Springfield November 3-4. The meeting was attended by a large number of physicians in the district and a very interesting program carried out.

One of the most distinctive features of the meeting was the address of Dr. H. E. Pearse, president of the State Medical Association, on the subject of "The School Child's Welfare." This was delivered at a public meeting in the evening and attracted a large audience of citizens, particularly of teachers and parents and others deeply interested in conserving and properly directing the energies of child-life.

The Committee on Medical Legislation made an exhaustive report which was adopted; a synopsis is given herewith:

"Medical legislation should be the faithful servant of education, ethics and economics. It should be its mission to codify into law whatever is found wise and right and beneficent by any of these. Legislation of any kind rightly done and defined is but the translation into language of the statutes principles which have already been found to have existence. Some of these principles have been recognized, and, with binding force, long before they have been translated into language that could be written into statutes. It was a long time after Cain slew Abel before the lawgiver of Israel appeared with the first statute against killing, yet the principle which was nothing less than unenacted law, had all the while been in force. The truth is, all real law is as old as the universe itself,

but probably much the larger part of it remains undiscovered and untranslated. The Egyptians left indisputable evidence in the everlasting monuments they built that they knew well the movement of the celestial bodies, and the shepherds of Judea's hills were able to foretell at what time and place in the heavens the sparkling orbs would be, yet it remained for a philosopher of much more recent time to watch an apple fall and from this translate into language that all might read the law through which the stars performed their harmonious revolutions—The Law of Gravitation.

Medical legislation is as yet almost a blank book of statutory enactment, and some of that which has been written must needs be changed. Until enough study has been devoted to education, ethics and economics, to discover a law or the laws by which each is controlled and made to harmonize, we should be slow to write a language on the blank pages of our book; however this is not to sanction anything short of the greatest activity in trying to discover the great principles that long ago should have been discovered and enunciated.

There seems to be now no well defined boundary line in the minds of medical men dividing four of the grand divisions that have been mentioned. Some seem to think that education claims the whole territory as its own. We think it is due to this unsettled condition that we are not able to single out and write more medical laws than have been written. If left to some of our schools, no laws save those for enforcement of educational requirements would be enacted.

Since it is known beforehand that relief cannot come to us through the further elevation of our educational standard, would it not be well to propose legislation looking to the strengthening of the economic side? It is a wonder, accounted for only by the progressive spirit of the profession, that our members not only tolerate but actually assist in doing all that they can do to lift the profession toward a higher and ideal plane, although to do so entails much sacrifice. This sacrifice we believe is in a large measure self-inflicted by the profession in that we have asked for our burdens without demanding normal compensations. If the great State of Missouri would have us the equals of those of any other state why, when we shall have measured up to the given standard, shall we not receive some favors that have been extended in other states? Indiana allows her county commissioners to contract through the township trustees for medical services to her indigent citizens and pays the doctor, but Missouri has enough to do to pay for the care of her game—her doctors can look after her sick. A law on the deadbeat and another on pauper practice will do much toward solving knotty problems in ethics and education and will lend inspiration in the public health movement. Such a step by the state would mean more journals, books and instruments for, and more time spent at the medical society and more money spent at post-graduate schools by physicians; while the public would derive more efficient service and the state could more reasonably depend on all as a working body of willing sanitarians.

Your committee has in previous reports advocated legal counsel for our State Board of Health. This is seen to be sorely needed. A board of health attorney, in addition to the service he would render that body, would be of inestimable value in the inspiration he would be to that class of prosecuting attorneys who are either color-blind or strabismic to all violations of the medical practice laws. We believe a board of health attorney would be of more benefit in showing to a short-sighted prosecuting attorney the violations of law in his respective county than all the medical societies that could be organized in the given territory. As it is now, the onus of getting up evidence looking to the enforcement of the medical laws is usually laid

by the county attorney on the members of the medical societies. Grant at Vicksburg stationed white troops behind his colored soldiers, and next morning reported that the "colored troops fought nobly." If we had a troop of officers behind some of our civil officers we might be able to report that our medical laws have been rigidly enforced.

It is to be hoped that the next General Assembly of Missouri will be sufficiently liberal in its appropriations for board of health purposes that that body will not be handicapped in carrying out all needed sanitary measures and that there will then be enough left with which to pay for antitoxin to combat diphtheria in children of the poor.

We need an act on expert testimony, and it is to be hoped those who are entrusted with the shaping of this bill will give the individual members of the profession copies in time to allow the proposed legislation to be properly read and thoroughly digested. No member of the profession should be requested to lend his influence toward the passage of a bill until he has been informed of its provisions.

There should be some legislation looking toward the handling of our eleemosynary institutions in a more satisfactory manner than at present. Whatever the change to be made we should not lose sight of two important points; one of these is to remove as far as possible from political domination or interference the various appointments; and the other is to practice a policy of true economy in their management."

Resolutions expressing the sorrow and regret of the association on the death of Dr. F. E. Ross, one of the oldest members of the society, were adopted.

The physicians of Springfield entertained the association at a banquet at the Metropolitan Hotel, Dr. W. A. Camp being toastmaster.

ADAIR COUNTY MEDICAL SOCIETY

Adair County Medical Society held its regular monthly meeting at Kirksville, November 3, with the following members present: Drs. Callison, Martin, Gashwiler, Butler, A. W. Parrish, Quinn and Bert Parrish.

This being the time for the election of officers and no other business on the program, the society elected the following officers for 1911: President, E. S. Quinn; vice-president, T. R. Butler; secretary-treasurer, Bert B. Parrish; board of censors, J. S. Gashwiler, E. C. Callison, T. R. Butler. The election of delegate will be taken up at another meeting.

The society is in excellent condition, every member taking an active interest and more than doing his share of the work. We will take up the study of Allen's "Civics and Health" in conjunction with the Teachers' Society and expect to derive much benefit from the discussion of these subjects.

Beginning with the January meeting we shall adopt the post-graduate study as outlined by Dr. John H. Blackburn.

The society is progressing nicely and we look forward to 1911 in anticipation of it being our best and most profitable year.

BERT B. PARRISH, Secretary.

CALDWELL COUNTY MEDICAL SOCIETY

The Caldwell County Medical Society met in Breckenridge, October 20, and discussed the following program: "Blue Babies," by Dr. S. G. Meredith, Cowgill. "Report of cases of Infantile Paralysis," by Dr. R. L. Mount, Polo. "Electricity in Medicine," by Dr. C. L. Woolsey, Braymer. "The Differential Diagnosis of the Acute Diseases: Conjunctivitis, Iritis and Glaucoma," by Dr. Jos. Liehtenberg, Kansas City. "The Importance of Correct Clinical Diagnoses," by

Dr. Tinsley Brown, Hamilton. "Constipation," by Dr. W. M. Duffin, Hamilton. "Duodenal Uleer," by Dr. C. C. Conover, Kansas City. "Intestinal Obstruction," by Dr. W. F. Reynolds, Kansas City.

PUBLIC SESSION.

Address, by Dr. B. F. Carr, president, Polo.

Address, by Dr. H. E. Pearse, president Missouri State Medical Association.

The public session was well attended, and the banquet that followed was enjoyed by all in attendance.

The following officers were elected for 1911: Dr. Geo. S. Dowell, Braymer, president; Dr. O. O. Meredith, Breckenridge, vice-president; Dr. Geo. W. Gonis, Breckenridge, secretary-treasurer; Dr. C. C. Leeper, Braymer, delegate to State Association; Dr. C. O. Dewey, Breckenridge, essayist to State Association.

The society has successfully prosecuted charges against one Dr. J. M. Moses, of St. Louis, before the State Board of Health, causing his license to be suspended for two years.

GEO. W. GONIS, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

The Greene County Medical Society met in regular session October 14, Dr. D. U. Sherman presiding. A communication from Dr. Moss of Columbia requesting the County Society to join the State Association in endorsing Constitutional Amendment No. 11 was received and the request granted. A communication from Dr. Goodwin, secretary of the State Association informing the society of a proposed bill which is being prepared by the opticians to present to the next General Assembly, which if passed would place them on an equal plane with the oculist, was explained to the society and a committee appointed to draft resolutions opposing such a bill.

Dr. J. R. Boyd read a very instructive paper on goiter, and reported five cases now under treatment. The paper was discussed by nearly every member present.

MEETING OF OCTOBER 28

Dr. G. B. Dorrell read a paper on dysentery, which was well received and provoked considerable discussion.

There is considerable interest manifested in the society, but not as much as there should be. In this, as in all other societies, there are a few who are always present and ready to assist in making the society a success. We need more of the faithful active workers.

MEETING OF NOVEMBER 11

This session was well attended and considerable business was transacted. Dr. W. A. Camp read a very instructive paper on "Ophthalmia Neonatorum," and Dr. J. H. Fulbright lead the discussion, which followed. Dr. R. C. Robertson of Brookline was voted in as a member of the society.

A committee appointed several weeks ago to report on the "optometry" bill now being prepared to be introduced in the next legislature, reported to the society. The report, which is as follows, was adopted unanimously:

"WHEREAS, The opticians of the state are preparing a bill to be introduced in the next legislature to be known as the "optometry" bill, which is wholly in the interest of persons traveling or located about this state who are now without legal status, but are nevertheless posing as competent to treat eyes with glasses, and

"WHEREAS, The practice of refraction is a branch of the practice of medicine and should be governed by the same laws, which fact is recognized and has been acted upon by several state licensing boards, and other boards, including our own state licensing board, are

preparing to make the same demand of candidates for license to practice medicine, and

"WHEREAS, If such optometric legislation be had it will lower the standard of efficiency in medicine which the State Medical Association has so assiduously guarded and advanced, therefore, be it,

"Resolved, That the Greene County Medical Society condemn in unmeasured terms the content and purpose of said 'optometry' bill, and that we request and insist that our representatives in the coming legislature, from Greene county and senatorial district, do all in their power to defeat said measure. Be it further

"Resolved, That this society fully endorse the purpose of our State Board to include in its requirements for license a practical knowledge of the principles of refraction."

THOS. O. KLINGNER, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

On account of inclement weather the Howard County Medical Society failed to have a quorum at its regular meeting, November 4. The secretary has been ill, but attended the meeting. There were present Dr. A. R. McComas, councilor for the district; Drs. Watts, Bonham and Lewis.

Dr. McComas gave some interesting facts concerning tuberculosis and appendicitis, and said there had been quite a number of appendicitis cases in and near the town of Clark recently. He called attention to the dangerous practices of quacks and charlatans when appendicitis cases fall into their hands.

Dr. Watts read a brief tribute of respect to the memory of the late Dr. John M. Allen of Liberty, Missouri, who died November 1. He was requested to send this to the JOURNAL for publication.

The election of officers was postponed until the meeting on the first Friday in December.

After a very pleasant hour of social chat, the members adjourned.

Dr. M. S. White of Shannondale has paid his dues for 1911. We hope all the other members will do likewise at the December meeting.

C. W. WATTS, M.D., Reporter.

LIVINGSTON COUNTY MEDICAL SOCIETY

Livingston County Medical Society met in regular session in Chillicothe, November 9. The following members were present: W. R. Simpson, B. N. Stevens, R. Barney, W. M. Girdner, A. J. Simpson, H. M. Grace and J. C. Shelton, and J. E. Callaway, a visitor.

The following officers were elected for 1911: W. R. Simpson, president; B. N. Stevens, vice-president; W. M. Girdner, treasurer; J. C. Shelton, secretary; R. Barney, delegate; A. J. Simpson, alternate.

The society voted to hold meetings twice a month during the winter months, the second and fourth Wednesdays of each month at 7:30 p. m.

MEETING OF NOVEMBER 18

Dr. B. N. Stevens read a very interesting paper entitled "How Shall We Improve the Human Race?" The paper advanced the idea of segregating or emasculating the criminal and vicious and those with hereditary or communicable diseases. The paper was freely discussed by all present and the society congratulated the doctor on his paper and suggested that the paper be published in the JOURNAL.

Dr. A. J. Simpson read a very excellent paper entitled, "My Methods of Prevention of Stitch Abscess in Abdominal Surgery." These were two of the best papers presented to the society during the year and we are expecting many more valuable papers in the next few months as all are anxious that our county society be made better, and we are going to work together to make it better.

J. C. SHELTON, M.D., Secretary.

MACON COUNTY MEDICAL SOCIETY

The Macon County Medical Society met in regular session at Macon, October 11th.

Dr. T. S. Watson presented an excellent paper on post partum hemorrhage, which elicited a general discussion by all the members present.

The usual anatomic demonstrations could not be had on account of failure of material to arrive. This county society attempts an anatomical demonstration when practical of every subject discussed.

The Macon County Society places its membership at the disposal of the Macon County Teachers' Institute, and addresses were delivered by Dr. W. H. Miller, on "Medical Supervision of School Children;" by Dr. Pipkin on "The Gospel of Fresh Air"; by Dr. Thompson on "The Nervous System in Pupil and Teacher."

This work will be carried on throughout the winter in various parts of the county, and a teachers' study circle, in which the doctors will cooperate, will be organized to study Allen's "Civics and Health."

The following members were present: E. C. Salyer, Keota; T. S. Watson and Geo. F. Brewington, Bevier; F. W. Allen, Kaseyville; J. H. Belyea, Ardmore; A. L. Cambria and G. C. Lyda, Atlanta; W. H. Miller, E. S. Smith, C. W. Reagan and A. B. Miller, Macon.

This being the regular quarterly meeting the ladies' auxiliary (consisting of the doctors' wives) met also, and at noon the doctors and their wives all took dinner together at the Bungalow. I heartily commend this new feature to all the medical societies. It affords the doctors' wives an opportunity to get acquainted and strengthens the bonds of fellowship. Try it. This was a very pleasant and profitable session.

"Puerperal Sepsis" was selected as the next subject. Dr. Thompson, essayist.

"Anterior Poliomyelitis" was selected as the subject and Dr. Smith essayist for the December meeting.

A. B. MILLER, M.D., Secretary.

MISSISSIPPI COUNTY MEDICAL SOCIETY

Mississippi County Medical Society met in regular session at Charleston, November 7. The following members were present: Drs. J. C. Boone, A. W. Chapman, W. S. Love, G. R. Wallace, J. W. Lynch, H. L. Reid and A. H. Marshall.

After the transaction of routine business the society proceeded to the election of officers for 1911 and the following were elected: President, Dr. W. S. Love, reelected; first vice-president, Dr. A. W. Chapman; second vice-president, Dr. J. S. Davis; secretary-treasurer, Dr. J. C. Boone, reelected; delegate, Dr. A. W. Chapman; alternate, Dr. H. L. Reid.

No papers were discussed but the members talked over many things of benefit to the society and showed a determination to improve their work. There is a decidedly deeper interest now manifest in society work than was apparent in the past.

J. C. BOONE, M.D., Secretary.

RALLS COUNTY MEDICAL SOCIETY

The Ralls County Medical Society held a regular meeting at Spalding Springs, July 21. The following were present: Drs. C. H. Graves, W. S. Harwood, W. P. Birney and W. L. Birney of the county society; and as visitors, Drs. J. N. Baskett, E. H. Bounds, J. J. Bourn, Thomas Chowning, J. F. Cooper, J. J. Farrell, W. H. Hays, I. E. Hill, E. T. Hornback, J. S. Howell, R. M. Winn and Proctor, all of the Marion County Medical Society.

The meeting was called to order by the president, Dr. C. H. Graves. In absence of the secretary, Dr. I. E. Hill was appointed secretary pro tem. Election of officers deferred to October.

Dr. Hendrix could not be present, and his paper "Maternal Impressions" was referred to the committee on program of the October meeting.

SYMPOSIUM ON APPENDICITIS: Dr. Baskett in his paper took the ground that appendicitis was a surgical disease and should be dealt with as such. Dr. Birney in his paper contended that in the catarrhal form of the disease surgery had no place, but that some cases of perforation or gangrene needed operation. Drs. Walter and Goodier, the other two essayists in the symposium were absent. Discussed by Drs. Winn, Bounds, Bourn, Hays, Farrell, Chowning, Proctor, Hornback, Cooper, Howell, Harwood and Graves. Closed by Drs. Baskett and Birney.

MEETING OF OCTOBER 20

Present, Drs. N. A. Foster, W. S. Harwood, F. M. Wicks, F. Walter, C. H. Graves, W. P. Birney, W. T. Walters and T. J. Downing.

The occasion was in honor of the semi-centennial of Dr. N. A. Foster's life as a physician in the community in which he is still living.

A splendid banquet was served at Hotel Wicks from 6 to 8 p. m. After the feast the society adjourned to the Christian Church, where congratulations and kind words were literally showered upon good old Doctor Foster, and a sketch of his life was read.

Then Dr. F. Walter read a very interesting and instructive paper on "Bacterin and Serum Treatment of Certain Diseases." Discussion was general and excellent.

The society also endorsed by a unanimous vote the proposed amendment to the Constitution, No. 11.

Adjourned to meet in Perry next January.

T. J. DOWNING, M.D., Secretary.

RANDOLPH COUNTY MEDICAL SOCIETY

Randolph County Medical Society met in a joint session with the Randolph County Teachers' Association on the evening of November 17. Dr. Woodson Moss of Columbia, was the guest of the evening and gave a most interesting address on "Tuberculosis in the School and in the Home." Dr. Moss handled his subject with admirable ease and placed the corner stone for a great work toward exterminating tuberculosis from our public schools in Randolph county.

After the joint meeting the medical society held its November session and elected the following officers for the ensuing year: G. O. Cuppidge, president; G. M. Nichols, vice president; Curtis Lyter, secretary-treasurer; D. O. Barnhart, delegate; C. B. Clapp, alternate.

A committee composed of Drs. Cuppidge, Lyter and Nichols was appointed to prepare a program for the year 1911. This program will be discussed at our December meeting at Moberly on December 15.

Prospects for a strong membership for 1911 are good. It is our desire to see every physician in Randolph in "good standing." It is his duty.

J. C. LYTER, M.D., Secretary.

VERNON COUNTY MEDICAL SOCIETY

The Vernon County Medical Society met in regular session on November 3, the president presiding. Several visiting physicians were present, among whom were Drs. Conover and Hill of Kansas City, Dr. Howard of Slater and Dr. Unterberg of St. Louis.

Dr. Conover read a paper on "Duodenal Ulcers," and Dr. Hill lectured on "Conservative Surgery of the Female Pelvis." These papers were well discussed by Drs. Dulin, Amerman, Williams, Johnson and others. Among the local physicians present were Doctors Bohannon, Williams, Hornback, Willson, Craig, Johnson, Amerman, Yater, Dulin, Callaway and Rooks.

The following resolution was proposed by Dr. E. A. Dulin and unanimously adopted: "Whereas this society is in favor of public education and is in full sympathy with the progress of the State University at Columbia, therefore, we give our hearty endorsement to the proposed Eleventh Constitutional Amendment and recommend the adoption of the same at the state election, November 8, next."

V. O. WILLIAMS, M.D., Secretary.

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(Continued from page 176)

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(To be Continued)

BOOK REVIEWS

THE PHYSICIANS' POCKET ACCOUNT BOOK. By J. J. Taylor, M.D., 212 pages. Leather. Price \$1 postpaid. J. J. Taylor, Publisher, 4105 Walnut St., Philadelphia, Pa.

The special feature of this book is a system of accounts whereby each transaction can be recorded in a moment's time in plain language, so that it is strictly legal as evidence in court without personal explanation, and so arranged that any patron's account can be ascertained on demand without any posting.

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THE STORY OF THE BACTERIA. Revised and Enlarged Edition. By T. Mitchell Prudden, M.D.

"The Story of the Bacteria," by T. Mitchell Prudden, M.D., a revised and enlarged edition of which has just been published by the Putnams, is a contribution to a science that since the last two decades, when the first edition of this volume was issued, has made extraordinary strides. In this volume are considered the most persistent foes with which man has to deal and all the more dangerous because invisible. The bacteria of consumption, typhoid fever, Asiatic cholera, pneumonia, influenza, colds, diphtheria, tetanus, and of many other ailments are discussed both independently and in their relation to disease. The common sources of infection are reviewed and the necessary preventives adequately set forth. It is a volume that should find a place in every household.

W. B. Saunders Company now have going through their presses a three volume work on Practical Treatment, written by international authorities and edited by those able clinicians, Dr. John H. Musser and Dr. A. O. J. Kelly, both of the University of Pennsylvania.

This work will undoubtedly take rank as the very best on treatment extant. The names of the authors carry with them the positive assurance of thoroughness. Indeed, each chapter is a complete monograph, presenting the most recent therapeutic measures in a really practical way.

As the general practitioner is required to know certain therapeutic measures more or less of a surgical nature, leading surgeons have been selected to present such subjects. This is an important feature, and, to our knowledge, not included in any similar work.

In every case the men have been most aptly chosen for their respective tasks, and under the wise editorship of Drs. Musser and Kelly there has been produced a work on treatment that will remain for many years a source of practical information, easily obtained and readily digested.

The work will sell for \$6 per volume, in sets only.

THE CENTURY has selected the life of Martin Luther as one of its strongest features in 1911, because a knowledge of the work of Luther and of the Reformation and its effect on modern religious thought is necessary to an understanding of today's religious problems. This life is not written from a theological viewpoint, but is vivid, dramatic and readable. The leading fiction of the year will be "The Dweller on the Threshold," by Robert Hichens, a tale of psychical phenomena. In this striking and salient story, Mr. Hichens has entered an entirely new field and one of fascinating speculation—the field of occultism.

DUST AND ITS DANGERS. Revised and Enlarged Edition. By T. Mitchell Prudden, M.D.

The Putnams have just published a revised and enlarged edition of "Dust and Its Dangers," by T. Mitchell Prudden, M.D. The revision of the text for this second edition covers those phases of the subject on which new light has been thrown during the last two decades. But the general character of the book—a plea for clean air—remains unchanged. The volume contains an illuminating study of the living elements of a dangerous character contained in indoor and outdoor dust and of the relation of dust to disease.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

JANUARY, 1911

Number 7

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION
COMMITTEE { M. B. CLOPTON, M.D., Chairman
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ORIGINAL ARTICLES

FURTHER EXPERIENCE WITH INTERNAL SPLINT IN THE TREATMENT OF FRACTURES *

HERMAN E. PEARSE, M.D.
KANSAS CITY, MO.

In May, 1909, I read a paper on "The Use of Internal or Direct Splints, in the Treatment of Fracture of Bone." The matter had been called to my attention by the excellent work of the author of the method, Mr. William Arbuthnot Lane of Guy's Hospital, London. At that time I stated as follows:

The revelations of the *x-ray* have proved to us what post-mortem findings had led us to suspect: we are never, almost never, getting the ends of two bones in good apposition by extension, counter-extension and splint. The work of the masseur has proved that we kept the parts too long immobilized. We too often have had stiff members. These have been the heritage of the old system of "setting" fractures—pain, long loss of use, crooked parts, poor use of mended members, sometimes loss of reputation and occasional damage suits; and the more the *x-ray* is educating the public, the oftener comes the protest against the result.

A large number, perhaps a majority, of the suits filed against doctors are from results after fracture "setting."

The following are insurmountable obstacles to exactness and hence to perfection of results under the external splint method:

1. It is impossible to see the ends of bone, hence impossible to secure accurate apposition of ends.

2. Breaks are never so exactly transverse as not to slip sidewise on occasion.

3. Portions of fascia and muscle will become misplaced and engage between the ends of the bone.

4. The hemorrhage from broken bones does not stop until the parts are packed with a blood clot that must be absorbed and whose presence increases the stiffness and uselessness of the mended member.

5. External splints applied over the parts, separated from the actual broken bone by muscle, fat and skin, cannot hold the parts in more than indifferent position, and then only by exerting undue pressure on the soft parts.

6. Too often one fragment of the broken bone is too short to afford proper bearing for the splint and thus maintain the axis of the bone in its proper position.

7. Every factor of the external splint process used to maintain apposition, splints, bandages, pressure, extension and rest; all these tell against nutrition.

8. Early motion which is the panacea for stiffness and loss of function, must be sacrificed to the need for bony apposition.

In view of these reasons for imperfect results, the external splint method has been recognized as faulty, and I am desirous of presenting to you a much better method, which is applicable to any recent fracture whenever perfect aseptic technic can be carried out, namely, the incision of the soft parts and the application of a steel splint or splice fastened with screws directly to the replaced fragments of the bone in such a manner as to maintain perfect apposition. If the fragment is a condyle or other projection it can sometimes be simply fastened by screws, nails or staples.

I have done this operation up to the present time on twenty-three cases, the complete records of which were mostly destroyed in the fire which burned the Rialto Building, Dec. 23, 1909. These splints open up a new and legitimate field of surgery that should not be abused by careless invasion; but if properly approached and cultivated

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

will result in the saving of many limbs that would otherwise be amputated, and in the very great lessening of time required in the repair of serious fractures. There will also be many straight, strong, useful members where now are crooked and useless ones.

I employ the method:

1. In simple fractures where external splinting, plaster-of-Paris or extension fails to retain the broken bones in fairly good apposition.

2. In simple fractures very near a joint or involving a joint.

3. In compound fractures where on account of the location of the external wound or of damage to soft parts proper immobilization cannot be done.

4. In ununited fractures where I formerly used silver wire.

The questions usually asked me are about the following:

1. "Do you take out the splint after the fracture is united?" No. The splint is left permanently in place if possible.

2. "Does the splint ever come out?" Yes. Nature will sometimes cause a splint to loosen and come away, months or even years after it is put in. Should it be seen to be causing trouble it is best to cut down and remove it. This is devoid of danger if aseptic technic is employed.

3. "What about the splint in compound fractures?" Usually I pack down to the splint. I do not expect the splint to remain over eight to twenty weeks in a bad compound case—only long enough to secure solid bone union, then remove it.

4. "Do you treat all fractures by this method?" No. The method is applicable to all classes of fractures but in my practice there has been, so far, need of the splint only about once in four or five cases of fracture. In my service at the Kansas City General Hospital, I think I operated about once in four cases.

5. "What is the technic?" I feel bound to quote the exact language of the author in this matter. Here is the technic as told by Mr. Lane himself in "Operative Treatment of Fracture":

"The operative treatment of simple fracture is comparatively easy in the majority of cases, and if due care is taken and reasonable skill be exercised the risk is practically nil.

"In certain small proportion of cases the bone may be too friable, too thin, or too much broken up, and the surgeon may therefore be unable to restore it completely to its original form. Even in these circumstances he can almost always obtain a much better result by operating than by any other form of treatment.

"Age is no barrier to operation; indeed, in old people an operation is often more imperatively called for than in vigorous life, for the reason that prolonged recumbency in old age is a very serious matter, often entailing of necessity a fatal

result. The shock sustained from surgical interference is trivial, old people bearing operation well. Alcoholic patients, in whom the soft parts about the fracture have been very severely damaged as a result of direct violence, incur more risk from the injury than healthy ones, so it follows that the additional risk consequent on operation in these cases is naturally greater than in the normal subject, not because of the operation but because of the conditions in which the operation is performed. In other words, alcoholism and direct injury to soft parts increase the danger of fractures and also add to the risk of their operative treatment. I have found the bones of chronic alcoholics to be frequently thin and friable.

"Many complaints have been made by surgeons who have failed to obtain good results by operation. For example, some have said their screws would not hold and others that they could not obtain union. These failures are due to the fact that the very moderate cleanliness necessary to obtain a good result in ordinary operations is quite insufficient to meet that required when a large piece of metal, whether steel or silver, is left buried in the wound.

"If the surgeon has not succeeded in such a simple operation as wiring fractures of the patella without killing or permanently disabling many of his patients, he had better bring himself to believe that the results of the generally accepted methods of treatment are excellent, and that any statements to the contrary are exaggerated or imaginary, and leave operations on recent fractures alone, since they may test the methods and skill of the operator to the utmost.

"In performing these operations, not only must you not touch the interior of the wound with your hands, not permit the patient's skin to do so either, but you must never let any portion of an instrument which has been in contact with your skin or with that of the patient touch the raw surface. All sponges must be held in forceps and applied to the wound in that manner. They should not be handled in any way previous to being used.

"After an instrument has been used for a length of time, or forcibly it should be reboiled or placed in a germicidal solution.

"I have occasionally seen beginners employ the handle of a knife or dissecting forceps to separate adherent parts, or to displace some structure instead of using the particular instrument made for that purpose. I need not remind you that this must not be done on any pretext whatever.

"It is probably unnecessary to say that no germicidal or other liquid should be introduced into the wound.

"The details of the operation are as follows:

"Get the skin thoroughly clean. This may sometimes take several days, as the thick indura-

ted epidermis of the foot and knee is often difficult to remove. I find large moist compresses with careful scrapings most effective in enabling one to get rid of suspicious material. When this has been properly done a germicide should be applied to render the skin as clean as possible.

"Choose a situation for your incision which involves a minimum chance of damage to important structures and a maximum advantage from the point of view of accessibility. Do not hesitate to make the incision of a length sufficient to enable you to deal effectually with the fragments. There is no greater mistake than to exaggerate the difficulties of the operations by employing an incision which is not sufficiently long to permit of easy access to and ready manipulation of the fragments. Its length in no way increases the risk the patient runs, but usually adds to his safety, since it enables the surgeon to deal with the fragments more readily.

"Having made the incision, exclude the skin of the patient from contact with the wound. This can be done effectually by attaching sterile cloths to the cutaneous margins of the incisions by forceps. These are made in several sizes.

"The fragments are exposed and examined, and when all clots and material intervening between them have been removed they are brought into accurate apposition. To do this much traction may be necessary, combined with the leverage action of elevators and the approximating influence of powerful long-handled forceps. The long forceps I employ are very powerful and are made with a limited grasp to facilitate their use.

"If there be any bleeding it is effectually dealt with by strong compression forceps long enough to allow that portion of the handles which have come into contact with the fingers, to protrude beyond the areas of the wound. Their grip is sufficiently firm to occlude the vessels if they are kept on for a short time, and so the necessity for a ligature is obviated."

There are certain points I wish to emphasize:

1. The incision should be long and free; it is a great mistake to try to work through an insufficient incision.

2. Make the incision at whatever location the bone can be approached with least damage to soft parts.

3. Hold the bones in close apposition by heavy forceps while fitting the splints and drilling the holes. Have a sharp drill the exact size of the screw to be used. If larger the screw will not hold. If smaller you will have trouble in driving the screws home.

4. Boil everything that is to touch the wound one hour, except rubber gloves and cutting instruments. Boil the former ten minutes; place the latter in 95 per cent. carbolic acid or 5 per cent. formalin for thirty minutes, then in alcohol thirty minutes.

5. Pay particular attention to the periosteum. Get it closely laid on the bone. Splints go outside the periosteum. In bad compound fractures one can depend on the periosteum to build in new bone if it is properly placed.

The bone is seized by strong forceps, and the fragments are closely fitted together under the eye of the surgeon; every portion of the break is made to fit accurately. No further oozing occurs from broken bone ends. Blood clots in the soft parts are carefully wiped away. Any fragment of periosteum or fascia that may have been displaced is placed in its proper relation. From the supply at hand, taken clean and boiled from the sterilizer, the surgeon selects one splice or internal splint that fits the parts and secures it firmly. More than one can be used if desired. These splints are from fine, malleable, steel strips, ground out, shaped, smoothed and polished by a machinist and screw holes made at convenient distances. They may be made of silver or other material if desired, but steel answers all purposes, and can be made in a short time by any one having some mechanical skill. After fitting the splint carefully the holes are drilled into the bone to receive the screws. These are short, and are intended to be received into the proximal bone only. The narrow splint and the short screws are recent modifications.

The splint may not be retained but it usually is. If not, a sinus forms, or there is some irritation, and the surgeon cuts down and removes the splint through a small incision.

The case shown here received a gunshot wound of the arm, when the upper arm was lying over the muzzle of a shot gun. There was severe sepsis when he came to me for amputation. After making clean the wound, which required much time, and some further incision of soft parts, the ends of the shattered bone were brought in apposition and I decided to try to save the arm with some four or five inches of the bone gone. A splint was applied and continuous irrigation used for seventy-two hours. The temperature dropped but suppuration was intense. At the tenth day the splint broke during sleep. I applied two others next day, each heavier than the first. One of these broke and the other loosened at the end of four weeks and the bone ends separated about $1\frac{1}{2}$ inches. It then held and rendered the arm quite firm as the cross arms of the T splint had been bent around the upper fragment. The periosteum commenced building about the sixth to eighth week as I remember and finally has become quite firm. One splint has been removed. The other is still in place.

A complication of this case was an attack of tetanus occurring the nineteenth to twentieth day from which as you will see he has recovered.

He has a shortened arm but is pitching hay, plowing and doing farm work with the new bone formation and the iron splint in place.

DISCUSSION

DR. FRANCIS REDER, St. Louis: I would like to make one suggestion, basing the suggestion on a purely experimental ground. So much seems to depend upon the screw, I believe if we use a screw that is flat and not pointed that we can get better hold in the depth of the bone than we can with a pointed screw.

DR. HERMAN E. PEARSE, Kansas City, in closing: In choosing a drill you should choose one the size of the barrel of the screw and as it approaches the cancellous tissue it drops through and the point makes a tapering hole. The tapering screw will fit in the lower portion.

As to the special screws, the makers in Bridgeport, Conn., will make the screws with the screw thread running clear up to the head and no barrel on it.

The principal thing I have learned from this case and two others is, not to be in a hurry to take the splint out because of suppuration. If the continuity of the bone be maintained the periosteum will build new bone. If the continuity be lost the bone becomes red, soft and friable. In a foot case where I put the splint in a suppurating compound fracture, the foot and leg became so badly swollen and the suppuration so severe that we despaired of saving the foot. In that case I even consented to amputation but the patient refused, and with a badly swollen foot we kept up the irrigations and dressing with a sort of vain hope. The periosteum built in new bone, the old bone and splint came away, and the man is walking on that ankle and foot. Don't be in too great a hurry to amputate. There is a field for this work in compound fractures if you will be patient for twelve, twenty and even thirty months.

X-RAY LOCALIZATION OF FOREIGN BODIES*

R. D. CARMAN, M.D.
ST. LOUIS

The demonstration by the *x*-ray of foreign bodies which cast shadows is now a comparatively easy procedure. The localization of these bodies, however, until at a recent date, has been very unsatisfactory.

The purpose of this paper is to present to this association the late developments of technic which have made it possible to locate with practical correctness all substances producing skiagraphic shadows.

All who have attempted the removal of foreign bodies, even with skiagraphic guides before them, will admit the difficulties of the task. For this reason, the methods considered in this paper, which direct the operator to the foreign body without time-wasting search and make its removal certain, can be appreciated.

It is not the intention to cover all the methods of localization that have been invented and practiced up to this time, but merely to take up the most recent ones, which are to a considerable extent older methods modified and perfected.

General Localization: For the localization of foreign bodies, with the exception of those in the eye, the gastro-intestinal tract and genito-uri-

nary tract, the apparatus here shown, which is a modification and improvement of that devised by Mackenzie Davidson in 1898, is probably the most accurate now in use. The manufacturers describe the principles of this localizer as follows:

"First, a plate holder, with its exact center indicated so that an *x*-ray tube may be placed exactly perpendicular to its center, with a means of being shifted a given distance horizontally to either side; an exposure being made of the subject on the same plate and at the same distance on either side of the center, thereby obtaining two images of the object on the plate, precisely as a stereoscopic picture is made, except that the photographic plate is not changed.

"Second, a means for stretching two silk threads from the focal point of the anode to the

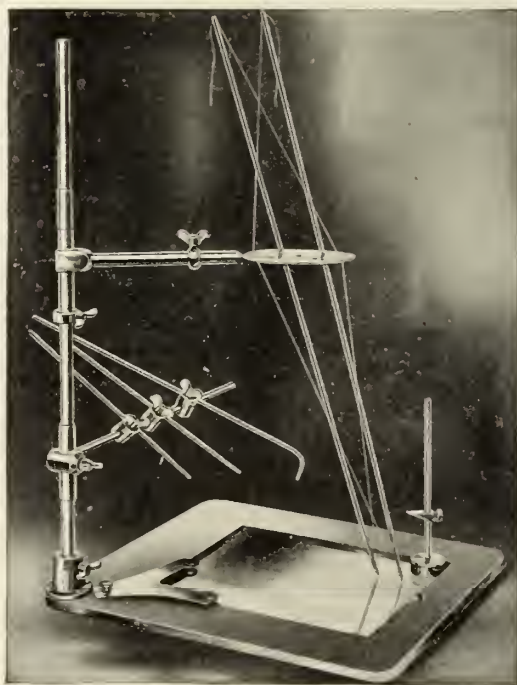


Fig. 1.—General localizer.

shadow made by the foreign body on the plate so that the threads will occupy exactly the same position as did the rays that made the shadows in the two exposures, and the crossing of the threads will indicate the exact distance of the foreign body from the sensitive plate as well as its position on a horizontal plane to landmarks on the localizer."

The base is a metal rectangle with a central shallow, pan-like depression 8 by 10 inches for the accommodation of the plate. The center of this depression is marked by crossed lines, and at one corner is a Y-shaped clip.

At the same corner of the base plate is a vertical standard to which are attached two movable horizontal arms. The lower arm has on it three

* Read at the Annual Meeting, Missouri State Medical Association, Hannibal, May, 1910.

small rods one of which has a curved end and all of which may be fixed in any position by set screws. The upper arm accommodates either of two attachments. One of these is a thin metal disk 5 inches in diameter, perforated at the center and at four radial points and is also notched on its periphery at four equidistant places. The other attachment is a universal joint through which passes a rod-like pointer with an adjustable collar on it.



Fig. 2.—General localizer.

The remainder of the apparatus consists of two slender pointed rods with silk threads fastened to their points, and a small lug which may be fixed at any height by a set screw.

Manner of Use: The base is placed on the table in the desired position. The tube carriage is brought over it and centered over the cross on the plate holder in the usual manner with a centering rod. The lugs on the carriage are fixed to permit only the lateral movement used in stereoscopic work. Then, after removing the tube carrier, the negative is laid in place and the patient put in position over it. The lower horizontal bar is set and the three short rods adjusted so that their tips touch the patient's body at different points, and these points are marked on the skin with nitrate of silver, the only object being to facilitate exactly replacing the patient for operation after radiographing. The tube carriage is replaced and the tube set. The upper horizontal bar, with the disk adjusted thereto, is then so placed that the disk is level with the anode of the tube, and rotated aside at that level.

Two exposures are now made somewhat as for stereoscopic work, but the tube, diaphragm, and cone must not be tilted. The first exposure is made with the tube pushed away from the operator, the second with the tube brought toward him. The tube carriage is now lifted away, the patient removed and the negative developed. The negative is laid on a sheet of white paper in its original position, as indicated by the Y previously mentioned.

Now the upper horizontal bar is rotated without changing its level, and fixed so that the center of the disk will be over the center of the plate. One of the pointed rods is passed through a hole in the disk, the point set on the first shadow of the foreign body, the silk thread drawn taut to the notch corresponding to the anode at the first exposure and fastened in the slit at the upper end of the rod. The other rod is passed through another convenient hole in the disk, its point set on the second shadow of the foreign body, the thread carried to the notch corresponding to the anode at the second exposure and likewise fastened at the top of the rod.

The intersection of the threads shows the location of the foreign body, and the lug on the

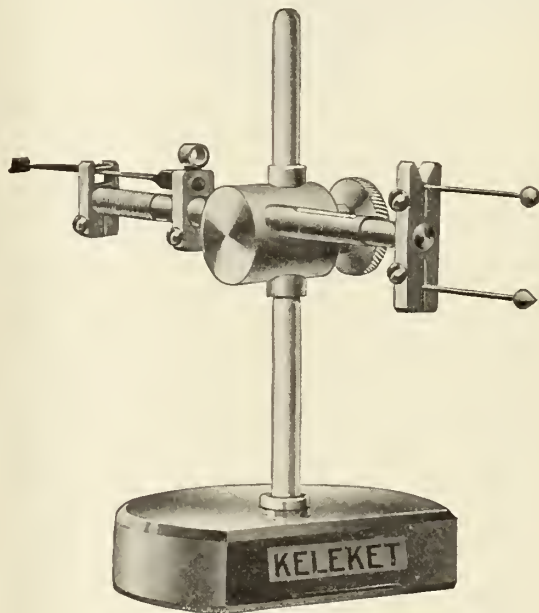


Fig. 3.—Ball and cone. Eye localizer.

small separate standard previously mentioned should be set at that point.

The disk is detached from the upper horizontal arm and the universal joint and rod substituted. The point of the rod is applied to the negative halfway between the two shadows of the foreign body and raised to the height of the lug on the small standard, the collar above adjusted, and the joint tightened.

After this the apparatus may be sterilized and placed on the operating table. The patient, pre-

pared for operation, is laid on it, the exact position being determined by the three indicators on the lower horizontal arm.

The long rod passing through the upper horizontal arm is allowed to descend until it rests on the patient. Thus it points directly to the foreign body, and the distance of the collar above the universal joint indicates the depth of the foreign body in the tissues.

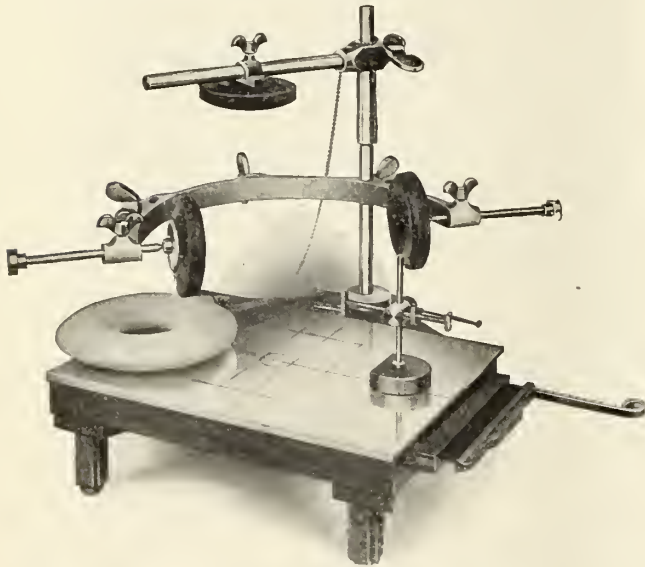


Fig. 4.—Head clamp. Eye localizer.

The reasonably definite localization of foreign bodies in any part of the human anatomy, more particularly in the chest, head, extremities and abdomen, is rendered possible and practicable by this method.

Special Localization—Gastro-Intestinal Tract: The general localization as described in the apparatus illustrated will locate the position of those foreign bodies outside of the gastro-intestinal tract, i. e., in the abdominal wall, back, etc. It will, however, not determine absolutely which hollow viscus contains foreign bodies that have been swallowed. As this determination is necessary before removal is attempted, their localization at any one point is procured by *x-ray* observation after a bismuth meal. By the aid of these observations, the different parts of the intestinal tract are definitely located.

As an illustration of this method, if a shadow of a foreign body which, having been swallowed, appears in the region of the stomach and is entirely obliterated by the bismuth meal shadow within it, it locates the foreign body in this organ.

Bronchi: Opaque foreign bodies in the bronchi can of course be localized by simple radiography. Where the foreign body is not opaque to the rays, as for example a grain of corn, the radiograph will show an atelectasis of the lung in

proportion to the obstruction and corresponding to the bronchus involved.

Genito-Urinary Tract: Localization of foreign bodies within the genito-urinary tract has already been pretty well developed.

For localizing foreign bodies in the kidney, no special apparatus is required. It is necessary, however, to procure a definite shadow of the kidney in order to be reasonably sure that the foreign body is in this organ.

Foreign bodies outside the kidney are excluded by the general localization described above, and by repeated examinations after catharsis and other usual precautions.

Shadows in and about the ureter are best located by the skiagraph after inserting opaque stylets in the ureters. Probably a good many shadows in the bony pelvis, outside the ureters, can be located by stereoscopic skiagraphs taken with a sound in the rectum, the sound being on the

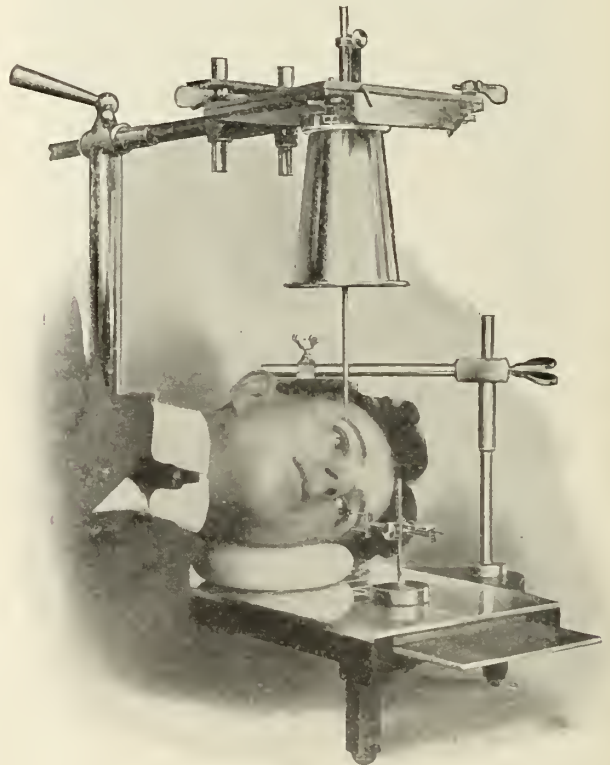


Fig. 5.—Position in first exposure; eye localization.

same transverse plane with the ureters in the male. Any shadow a considerable distance anterior or posterior to the sound is probably not in the ureter. The localization of stones in the bladder requires no special technic other than a good skiagraph.

Eye: The correct localization of foreign bodies in the eye requires special apparatus and technic.

Essentially, the apparatus consists of a small brass ball and cone, each attached to a slender rod 15 mm. apart, mounted on an adjustable upright. The ball is placed at the center of the cornea, and the cone to the temporal side. Two pictures are taken: the first with the ball and cone in the plane of the rays, the second at a slight angle. Measurements of the shadows on the two negatives of ball, cone and foreign body are applied to millimeter paper and the position of the foreign body correctly charted on the principle of triangulation.

The method finds its most spectacular usefulness in cases in which the foreign body is a bit of steel. After localizing it definitely, a small magnet can be introduced through a small incision, and the steel extracted. In those cases where the foreign body is not opaque to the

be emphasized, for I recall a case in my own experience where a transposition of the right and left plates led to a fruitless operation.

The constant tendency of work along this line, as indeed it is along every line in medicine, is toward simplicity of technic with accuracy of result. Yet, no matter how easily any procedure may be comprehended and applied, experience will always be necessary for interpretation and judgment. Specifically, I mean that the successful employment of the *x*-ray requires, and always will require, much more than mechanical skill, however great, and the earnest medical roentgenologist will always find use for his head as well as his hands.

DISCUSSION

DR. C. E. BURFORD, St. Louis: We, who have seen Dr. Carman's pictures, know the value of the paper. Recently I have secured some catheters that have incorporated in them material impervious to the *x*-ray so that the catheter may be introduced and the picture taken and drainage secured at the same time. One catheterization of the ureter is sufficient and the *x*-ray picture can be taken. It is surprising how many patients will show shadows in the region of the ilio-sacral synchondrosis. What they are it is impossible to say. Many will show two or three shadows and on passing in a catheter and taking a picture we find that they are usually outside of the ureter from one to two inches.

SOME COMMENTS ON REFRACTION*

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This subject is broached with the hope that it may induce an exchange of ideas on this subject. This is the most important branch of my work and I apprehend that refraction constitutes at least a major portion of the practice of all oculists. The practical problems encountered in this particular field of professional endeavor appear to me to be exceedingly difficult in many cases. The innumerable phases of innervation and musculature, the endless and ever changing variations in structure and physiologic compensation and the many kinds of heterophoria all serve to render the solution of the problems of refraction more difficult.

My conception of a solution of such problems consists of relieving the symptom of which the patient complains. This is the central thought contained in the fine monograph on this subject by Matthias Lancton Foster of New York.

The handling of this subject by our text-books is very unsatisfactory to me inasmuch as abstruse mathematical calculations and reckonings are made to occupy the chief place in the student's mind often, I imagine, to the exclusion of more useful practical knowledge and often, I also



Fig. 6.—Position in second exposure; eye localization.

x-ray, such as certain varieties of glass, crockery, or wood, the method is obviously not applicable.

For foreign bodies in the hand some have used and praised the fluoroscopic method, that is to say, the employment of the fluoroscope by the operator who, looking through it, makes his incision, exploration and extraction without other guide. Objection has been made, and the objection seems to me valid, that in this way injury might be done to tendons, arteries and translucent structures.

Stereoscopic localization is sometimes of value, and appeals strongly to the surgeon who may be able to associate the location of the foreign body with some surgical landmark and thus operate with assurance. But the importance of care in making and examining stereoscopic views must

* Read before the Eye, Ear, Nose and Throat Section, Jackson County Medical Society, Feb. 10, 1910.

imagine, to the end that a wrong conception of the need of the patient is had. The crying need of the patient is relief and the function of the practitioner is to afford relief; not to exploit new experiments and not to use the patient as material on which to try new theories and new instruments.

Our distinguished confrère, Edward Jackson, has just published an eloquent and incisive plea for greater accuracy in refraction. I am heartily in accord with his postulates for he simplifies and conditions the method which he advocates in such an absolutely practical and useful manner as to challenge the admiration of the earnest seeker for truth. I conceive that it is time for this subject to be broached here and to be seriously and frankly discussed. I think we need, each of us, to give our views as improved by our experience in hope of gaining progress. I learn there exists the greatest diversity of procedure among practitioners in this field and I note considerable modification of earlier methods. There is strong reason for this and there is great need for it. I learn from a reliable source that one of the local opticians here does a business of from \$1,200 to \$1,500 per month and I surmise his best available asset is an ability to display his goods and to embellish the advantage of more lavish expenditure on the part of his customers rather than an ability to diagnose and correct ametropia and heterophoria. I doubt whether he knows one-half the classification of these disorders.

When I began practice I supposed the oculist had the advantage over the optician by reason of better education and deeper knowledge, but I now think the optician has the advantage over the oculist by reason of more alluring methods. Be that as it may, both have their successes and their failures.

The question I wish to consider is, how to avoid the latter. A brief formula is: do accurate refraction and study the peculiarities of the individual. I shall be perfectly frank with you in explaining my method and I hope no one will hesitate to criticize as he may see fit. A synopsis of my method is as follows:

I first desire to know the occupation and age of the individual and then inquire minutely for all the symptoms, and form a mental estimate of the patient's character. The degree of vision for far and near are noted. I observe whether there is any external sign of disease of either eye and take the muscle balance and amount of divergence and convergence.

The cornea is next measured with the ophthalmometer and the ophthalmoscope is used to note the pupil, media, fundus and refraction.

I next test with trial lenses and sometimes, though rarely, nothing more is needed. In children I always use a strong cycloplegic and prefer atropin. In youths and adults prior to the age

of 40 I use homatropin with a little cocain. After the age of 40 less cycloplegic is necessary but I have had presbyopes with severe asthenopia from latent hypermetropia. Some of these cases are exceedingly obstinate as a result, I think, of many years of habitual cramp of the ciliary muscle. One author recommends atropin in these cases up to the age of 70, but I do not.

Dr. Burton K. Chance, Philadelphia, says: "In patients over 45 to 70 years of age, where I am convinced there is no objective evidence of glaucoma, I do not hesitate to use atropin in correcting for lenses, whether with or without heterophoria."

I depend on homatropin and cocain and usually succeed in ferreting out a small amount of unsymmetrical astigmatism of perhaps only a fourth or a third of a diopter. Then by ordering a constant correction in addition to one for near work, relief is secured. When a cycloplegic is used I invariably employ the skiascope and find it a great help but not to be depended on alone. In children from 4 to 6 years of age I depend more on the skiascope perforce of necessity but in older persons prefer to depend more on trial case reading tests.

I find the ophthalmometer less useful than the skiascope and consider St. John Roosa's alleged dependence on it in all cases as mere persiflage. In cases of simple hypermetropia it is useless. In cases of low astigmatism the ophthalmometer does not give the axis precisely and never in any case the total amount of astigmatism present since it does not consider the combined refraction of the lens system of the eye. The chief use I have for the ophthalmometer is to fix the axis in cases of high corneal astigmatism.

The skiascope is my chief instrument for objective testing, and I use it only with cycloplegia. Jackson's way of using the skiascope without a cycloplegic has never been useful in my hands. I must confess, however, to very limited efforts in this direction, for, having failed to measure the refraction as desired in this way, I henceforth resorted to cycloplegia.

The source of the greatest weakness in the skiascope lies in the fact that when irregular astigmatism exists, as it frequently does, the test yields confusing results. To avoid this Jackson recommends his artificial pupil. Not having his specifications I have had one made 6 mm. in diameter, so recently, however, as to be unable as yet to report on its efficiency.

After all is said and done, all tests must finally be checked up to the reading test and here, in particularly difficult cases, great assistance is rendered by the stenopeic slit and the perforated disk.

For this purpose I do not want the pin-hole disk but make the orifice large enough to admit sufficient light, about 4 or 5 mm. After having secured the refraction I wait until the accommo-

dation is again normally active and then make an after test and very carefully adjust the lenses to the precise needs of the individual.

This is a study of individual peculiarity. The sphere almost always and cylinder quite frequently needs to be modified. In some cases a second or even a third pair of lenses may be necessary as the eye gradually comes to accept a fuller correction. I have never employed the method of prescribing excessively strong convex lenses for the purpose of producing an artificial myopia as practiced and recommended by Lewis S. Dixon of Boston and others.

This plan is finding some favorable mention in the journals but I have never had a case which I thought needed such disagreeable treatment and I have not yet had the hardihood to employ it for experimental purposes.

In cases where the eye will not tolerate anywhere near its full correction, perhaps not more than 40 or 50 per cent., with clear, easy and comfortable vision for both distance and near and the symptoms are very pronounced, the lenses may have to be changed once or twice in the course of some months or a year, the object being to arrive eventually at a full correction of all astigmatism and all hypermetropia except about a quarter of a diopter. It has been my repeated experience to observe that the symptoms in even very severe cases are relieved for a longer or shorter period much to the gratification of the patient.

Care needs to be taken in such cases, and they are very numerous in my practice, to explain the situation very clearly to the patient so that he be not disappointed nor by delay allow his symptoms to become aggravated, but promptly on recurrence to return for such further increase in his lens correction as the eyes will accept. This will again afford relief and should be repeated until the full correction is worn.

Often I find a very difficult case which accepts but perhaps 40 per cent. will, after wearing this portion of the correction for a few months, accept what I consider a full correction, viz., a correction of all the astigmatism and all the hypermetropia but one-fourth of a diopter which I allow for range.

I believe it is fair to say that I habitually see only the more difficult class of refraction work, viz., the cases in which some one else, generally an optician, has failed. The simple, easy cases do not reach me, for the optician generally gets the first call and usually it is only in the cases where he fails to relieve that I am consulted.

The symptoms I encounter arising from error of refraction are headache of one kind or another, frontal or occipital or both, some form of brow-ache or temporal pain either unilateral or bilateral; pain or aching, dull or heavy or sharp or neuralgic, in or around the eyes. The pain, whatever its character, is sometimes apparently

only aggravated by any kind of precise use of the vision, generally for near but sometimes for distance, as when trying to fix and hold some distant object.

This functional distress is likely to be especially noticeable by artificial light. A feeling of weight or oppression or dulness and heaviness is sometimes bitterly complained of as being induced by near work and effectually preventing this. *Muscae volitantes*, scintillations on the page when reading, blurring of the type and dim vision occur.

Diplopia for distant or near objects or both may occur. Twitching of the eyeball or *tutamina*, nystagmus, *hordeola*, and *blepharitis marginalis* are frequent. I have seen cases with pain radiating down the neck, vertigo, nausea and vomiting or sick headache and various forms of more or less severe general nervous disorder, as chorea, in children and also *petit mal* and *grand mal* in children.

Whether these more serious conditions are purely a result of ocular error or not, or how far they are interdependent I cannot say. However, the cases I have had have improved after the eyes were relieved. Of course other general treatment was also employed in these cases so that a precise and definite conclusion cannot be arrived at.

Nervousness and neurasthenia I find to be quite frequent conditions accompanying asthenopia. Any of the nervous symptoms included in the foregoing category arising from the eye-strain of refractive error and its resultant functional exhaustion, are relieved by properly fitted lenses, preferably in the toric form.

418 Argyle Bldg.

BERCK-SUR-MER: A CITY OF HOSPITALS FOR THE TREATMENT OF BONE TUBERCULOSIS *

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Berck-sur-mer, a town of 2,000 or 3,000 inhabitants, is situated along the "dunes" or sand hills four hours' ride from Paris on the road to Calais. The main industry here is the hospital. It is the center for the treatment of bone tuberculosis in France. During the summer season the number of convalescents and their relatives brought here swells the population to 40,000 or 50,000. The streets are everywhere filled with small donkey-carts in which the patients of the various *maisons de sainté* are carried. Those who can walk march to the sea in long processions every morning and remain till night, with intermission for dinner. These pro-

* Read before the St. Louis Medical Society in general session, Oct. 1, 1910.

essions remind one of the pilgrimage to the famous shrine at Quebec, but with better results. The beaches are broad and most of the hospitals face directly on the sea. Chief among these institutions are the Hospital Maritime and Calot's orthopedic institute. There are about ten other private institutions. At all these institutions bone disease only is treated, pulmonary tuberculosis being excluded.

The age of admission is from 2 to 15 years. All children under 10 are, on admission, isolated completely in separate glass cages for a period of one month. Each child is kept in a separate compartment and no intercourse is permitted. These cages are large and well ventilated. At the end of this period they are placed in a second isolation ward for another month. Here they may mingle among themselves but not with the



1. Patients carried in donkey-carts on the beach at Berck. These carts are seen in all streets of the town. The patient in a prone position guides the reins.

The children seen everywhere have a healthy, tanned glow and are apparently happy. The long confinement on their backs does not seem to affect them adversely. In the city of Paris this same treatment of absolute rest is carried out to the detriment, I believe, of the child. There it is kept housed in the hospital, and without exception the children are pale and attenuated.

The atmosphere at Berck is cool in the morning and evening and not too hot during the day, an ideal climate for patients of this character. The air is sharp, exhilarating and stimulating.



3. New wing of Maritime Hospital, showing porticos where beds containing patients who are not allowed to walk are carried out and remain the entire day. This wing faces the sea.

other children of the hospital. This is done in order to prevent possible contagion as children of that age are subject to various diseases.

The wards are divided so as to contain cases with abscess, fistulæ and non-suppurating ones separately, whether Pott's, coxitis or other joints. No cases of spondylitis or tuberculosis of the lower extremity are allowed to walk. The former are kept on their backs from two to three years, coxitis about two, knees and ankles for about the same length of time; all depending on the condi-



2. Group of convalescent crippled children in front of the Maritime Hospital; old wing.

L'HÔPITAL MARITIME.—This is a large institution founded in 1869 and maintained by the city of Paris for the treatment of tuberculosis of bones, joints and glands. No pulmonary cases are accepted. There is a small number of patients with rachitis. It is situated on the beach, contains 1,000 beds and is in charge of Dr. Menard assisted by Drs. Andrien and Calvé.



4. Calot's orthopedic institute. Group of convalescents on beach.

tion of the patient on admission. The wards are large, well lighted and ventilated, each containing twenty-four beds, and open on long verandas on which the beds are brought during the day. Those who can walk, i. e., tuberculosis of the upper extremity, or convalescent cases of spine or lower extremity, play on the sands at least twelve hours a day. In winter this period is somewhat

shortened. The children in all stages of disease thus obtain the full benefit of the sea air which is claimed to contain a good percentage of iodine and to which the good results are attributed.

The apparatus here used is altogether of plaster. For spondylitis, no matter what part of the spine is involved, the time honored Sayre jacket, applied in suspension and including neck and shoulders, is used. The spica for coxitis, and ordinary plaster bandages for knee, ankle or other joints complete the armamentarium. Good results are claimed. The institution, notwithstanding its size, is very well managed.

Operative procedure is here but seldom employed. The question arises whether keeping a child, between 10 and 15 years of age, on its back for two or three years is justifiable. From results, and from the appearance of the children at the institution I am inclined to answer this question in the affirmative.

The mortality during the past year¹ was forty, or about 4 per cent. This percentage will be reduced to one-half when we consider that during the year 2,000 are admitted. Of these forty,



5. Indoor sun gallery, Calot's institute. Children are strapped to cots which can be carried about.

twenty-five died of tubercular meningitis, the remaining fifteen mainly of bronchopneumonia, two or three of miliary tuberculosis, but none of phthisis pulmonis, as these are either not admitted, or sent off if it develops.

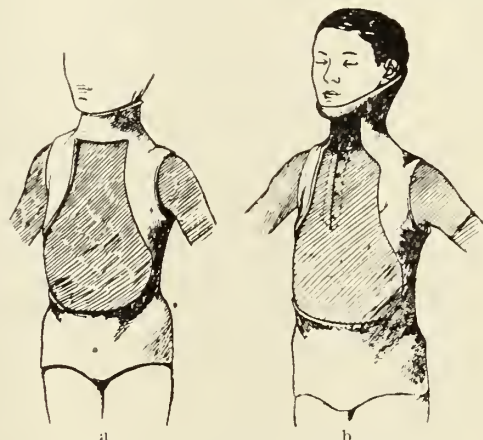
The results claimed in coxitis are that in those cases where abscess develops, ankylosed joints are the rule; in those without abscess, mobile joints are usually obtained, with exceptions in both cases.

Excision of head in coxitis is seldom employed. During the ten years of Dr. Menard's administration, 13,000 cases of this condition were treated, and excision performed in sixteen. Of these ten died and six recovered completely.

ST. FRANCIS DE SALLE. INSTITUTE ORTHOPEDIQUE DE CALOT.—This institution, owned and controlled by Calot, was built in 1896. It contains 500 beds, 300 of which are occupied by patients. In addition to these there are 150 who live out-

side but who are brought in for treatment. Of those in the house, 120 children, not accompanied by relatives, are seen twice daily. The rest are brought into the clinic room only when ordered by the surgeon. The institute is admirably situated, facing the sea; is large, roomy and modern. The parents or relatives accompanying the patients reside in the building. Here, as throughout France, tuberculosis of the spine and lower extremities are not permitted to walk. They are driven about all day in carts or, strapped to comfortable stretchers, they lounge on the verandas and gardens. Daily at 4 a large number of them are brought to the waiting room of the clinic and laid on the floor, producing a curious sight.

The method of treatment applied here varies from that employed at the other institutes and is original with Calot. In Pott's disease the "Calot" jacket is very efficacious. In cases as high as the fifth dorsal he employs the small



6. (a) Calot jacket for Pott's disease up to third dorsal vertebra; showing anterior windows. (b) Calot jacket for Pott's disease above third dorsal vertebra; showing anterior window carried to beneath chin. (After Calot.)

jacket, and above the fifth dorsal the long jacket. As applied here it takes but a few minutes to finish it. Small anterior and small posterior windows are made. On the third day the anterior window is enlarged, the patient is placed on his abdomen and cotton pads are pressed on the kyphos through the posterior window and renewed every two weeks. Not only is deformity prevented, but photographs and patients were shown me where marked kyphoses were, at the end of one or two years, greatly or completely reduced. Calot is practically the only orthopedist in Europe or America who still claims ability to reduce a tubercular kyphos of the spine.

In coxitis a plaster spica is employed in those cases where any deviation from the normal exists (flexion, adduction, etc.). In other cases a soft bandage, with extension, is applied. All cases are treated by injections, those with spicas having a fenestrum for this purpose. These injec-

1. This article was prepared in 1908.

tions consist of iodoform² or naphtho-camphor 1 per cent. (French codex) repeated twice a week till the acute symptoms subside. At the end of a year, in cases not too far advanced, a cure with a mobile joint results. Good movable joints are here obtained in 95 per cent. It is claimed that if little or no destruction of the outline of the head exists, a cure with a movable joint ought to result. Several such cases were shown me.

Genu valgum or varum are "redressed" with or without an anesthetic and put in plaster for five or six weeks, followed by apparatus for two months. No osteotomy or osteoclasis is performed. This method is also employed in adults. Tuberculous glands are injected with the iodine or camphor solutions to mollify or suppurate and then aspirated. Redressment for club-foot and for scoliosis completes the routine of work done here. The optimism in all methods employed is wonderful. Little or no bad results are claimed.

I must confess that I carried off but little of this optimism with me. During the two weeks of my stay at this institute, I zealously watched all cases and saw but few actual "cures" of either spine or hip; no more than at any other institution under conservative methods. The Calot jacket is an excellent means of support for spondylitis, but its ability to reduce the deformity is more than doubtful. When properly applied it is neat and comfortable. In fact all plaster work done here is superior to any I have seen in Europe. The apparent reduction of the kyphos may be due to an increase in the length of the spine, in which case the small curve would not be so noticeable.

A movable joint in a "cured" case of hip disease is not always a desideratum, as the disease is likely to relight when free motion is permitted. Where the disease is at all extensive ankylosis is in my opinion to be preferred.

Injection of various chemicals had and still has its advocates. At one period it was iodoform, at another bismuth, and again, formalin. All attempts at a cure by this method are but ephemeral and soon drop into oblivion. The period of convalescence is never hastened by its employment. Why subject the patient to the annoyance and danger?

In addition to the institutions named above there is the Rothschild Hospital (maintained by the Rothschilds) with 100 beds, the Cazin-Perrochaud with about 300, Parmentier with 300, and numerous others with fifty to 100 beds. The total number of patients at ordinary times is from 3,000 to 6,000, the number being increased by several thousand in summer.

416 Metropolitan Building.

2. Iodoform, 10; creosote, 2; guaiacol, 2; ether, 10; aq. dest., 100.

INTESTINAL OBSTRUCTION FROM APPENDICEAL ADHESIONS*

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ST. LOUIS

Intestinal obstruction caused by the adhesions resulting from appendiceal inflammation is one of the most important complications of that disease and one having the most serious consequences. The occurrence of this condition is more frequent than the number of cases reported in the literature would lead one to believe, and von Haeckel of Stettin is the authority for the statement that bowel occlusion is frequently met with after attacks of appendicitis.¹

It is somewhat strange that the Germans have been slow to recognize this form of intestinal obstruction, and though frequently commented on by surgeons in other countries, it has until recently received but little attention from them. Even as late as 1905, Prof. Heinrich Braun,² in a long article on the causes of complete and incomplete occlusion of the colon, fails to mention it. On the other hand the English, French and American writers have often called attention to it, as are found in the reports of Hawkins, Marion, Broca, Çestan, McBurney and others.

In all stages of appendicitis it is possible for an intestinal obstruction to develop:

1. In acute cases it will occur through diminution of peristalsis from inflammation or congestion of a portion of the bowel. This rapidly returns to normal after operation and the removal of the causative condition.

2. Where an increasing abscess presses the walls of the bowel together.

3. Parts of the bowel that form part of the wall of the abscess adhere together and become sharply kinked or are pressed against a hard substance as the bony wall of the pelvis.

4. After the healing of the appendiceal inflammation and also in the interval between attacks, the contracting adhesions, bands, etc., lead to kinking, strangulation or volvulus. In this stage after the subsidence of the primary attack, the adhesions, bands, and the agglutination of a number of the intestinal coils to each other or to the appendix for a long time may lead to ileus. The manner in which intestinal occlusion occurs may vary greatly. It may be a sharp bending of an adherent loop of bowel by the remains of the inflammation, or it may result from large convolutions of the bowels becoming adherent to each other. In other cases it occurs as a genuine strangulation resulting from the attachment of

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

1. Von Haeckel, II.: *Deutsche Zeitschrift für Chirurgie*, 1907, Bd. lxxxviii, S. 170.

2. Braun, Heinrich: *Ueber den Lage und Gestaltsveränderungen des Colon bedingten vollkommenen und unvollkommenen Darmverschluss*, *Deutsche Zeitschrift für Chirurgie*, 1905, Bd. lxxvi, S. 540.

the appendix round a loop of bowel and strangulating it.

Because of its length and its extreme mobility, the free extremity of the appendix is likely to be found in close apposition with or attached to any of the organs of the abdomen. Von Bergman³ of Riga reports a case in which the patient had suffered for eight months with pain in the epigastrium, fullness and pressure in the stomach, heart burn, loss of appetite and constipation. Pains radiated into the arms and back. The symptoms began from fifteen to thirty minutes after eating and ended frequently with severe vomiting. The vomitus was of sour taste and consisted of undigested food. No blood was present. In the last one and a half months the patient had become much emaciated and weak. A diagnosis of duodenal ulcer had been made by the attending and consulting physicians. On operation the appendix was found to be lengthened, inflamed and attached to the ascending portion of the duodenum, and this with the horizontal part was covered with adhesions. No ulcer or scar was found in the entire course of the duodenum. The adhesions were separated and the appendix removed. A posterior gastro-enterostomy after the method of von Haeckel was made. The patient continued to vomit and died three days later. On post-mortem examination no ulcer or other pathologic change in the stomach or intestines was found.

Paul⁴ reports operating for intestinal obstruction on a case having the symptoms of intestinal obstruction and appendicitis, and found the appendix embedded in a mass of adhesions and the ileum occluded by a band of adhesions encircling the gut four feet from the ileo-cecal valve. Payr⁵ reports that in five cases of stenosis of the colon, in three the origin of the inflammation causing the adhesions was in the appendix.

5. There is that form of intestinal obstruction that is caused by adhesions formed as a result of an inflammation in a retro-cecal or a retro-colonic lying appendix. This situation of the appendix is an abnormality and is the most frequent of the atypical or ectopic positions. It is the second in point of frequency of all the positions of the appendix. According to Howard Kelly⁶ it occurs in from twenty-five to thirty per cent. of all cases in the statistics of Johns Hopkins Hospital, and is usually associated with the absence of a well-formed mesappendix.

In a review of 2,092 autopsies made in the Anatomical Institute in Berlin, R. Liertz⁷ gives

the relative percentage of the retro-cecal or the retro-colonic position as twenty-one per cent. This is an ectopic condition and is the natural result of an abnormal process in fetal life. During the descent of the cecum the tip of the appendix may become attached to the parietal peritoneum high up near the liver and with the further descent of the cecum downward the appendix is drawn behind that organ and into the retro-cecal fossa where it remains.

The retro-cecal position predisposes to disease of the appendix from compression of its bacteria-laden fecal contents and mucus by an over-filled cecum causing an anemic condition of its walls. Should this continue for only a short time there results from injury of the tissues a *locus resistentia minoris* which furnishes a good soil for bacterial invasion. The intensity of the disease depends chiefly upon the number of previous attacks, of the character of the bowel contents, and on the virulence of the bacteria present. In this situation of the appendix, adhesions between the cecum, appendix and abdominal wall form quickly because of their close approximation, and hence should perforation occur there is greater probability of its encapsulation. When perforation occurs it is either into the cecum or into the loose subperitoneal connective tissues.

There is a well-defined group of cases⁸ where the appendix lies back of the cecum and the ascending colon, in which a small pus cavity forms somewhere near the tip of the appendix and continues to cause exacerbations in the symptoms from time to time. The appendix is always embedded in a mass of inflammatory tissue and plastered into the walls of the cecum so firmly that it is impossible to separate it without injury to the larger bowel. The abscess may be an old one with thickened inspissated pus or it may contain a few cubic centimeters of pure pus and sometimes a concretion is found lying outside of the appendix.

Apart from the origin of the inflammatory adhesions and indurations which cover the bowel and restrain its movability⁹ it sometimes happens that the bowel is attached *in toto* to the parietal peritoneum, that the mesentery is shrunken, or that all things cooperate at the same time so that the bowel is fixed, compressed and constricted as a result of an appendiceal inflammation. There the adhesions and indurations will be caused by local ulcerative processes in the appendix and it is not necessarily a supposition that it is a diseased condition of the involved bowel (colon or cecum) or its immediate vicinity if the adhesions originate from an attack of appendicitis and from these follows the resulting stenosis. An illustration of an intestinal stenosis of this character is the following case:

8. Kelly, Howard: *Loc. cit.*

9. Sprengel: *Die Erkrankungen des Wurmfortsatzes, Deutsche Chirurgie.*

3. Von Bergman: *Darmstenosen als Spätwirkung der Appendicitis, Deutsche Medicinische Wochenschrift, 1906, Bd. xxxii, S. 2026.*

4. Paul: *Medical Record, Oct. 27, 1900.*

5. Payr: *Ueber eine Eigenthümliche Form chronischer Dickdarmstenose an der Flexura coli sinistra, Langenbecks Archiv, Bd. lxxvii, S. 671.*

6. Kelly, Howard: *The Vermiform Appendix, 1905.*

7. Liertz, R.: *Archiv. für klinische Chirurgie, Bd. lxxxix, S. 55.*

CASE 1.—F. T., aged 30 years, a farmer. Had always been healthy until one and a half years ago, when he began to have attacks of pain in the region of his stomach, which he thought were due to indigestion. These recurred at irregular intervals, and being accompanied by vomiting, he was told by his physician that he had catarrh of the stomach. Later on he suffered from a more or less constant soreness, and to such an extent, that he was unable to ride horseback or in a jolting vehicle. This soreness was always felt in the epigastric region, and at no time did he have any symptoms pointing to an appendiceal inflammation. Accompanying this condition, was a gradually increasing constipation.

On Saturday, June 19, 1909, the patient was taken with an attack of nausea, and believing that it was the result of his costive condition, he took several cathartic pills of unknown composition, but without any action of the bowels resulting. The nausea continued intermittently throughout Sunday and Monday. Between the attacks of nausea, the patient felt well, and was able, on Sunday, to eat a hearty dinner, which consisted in part of radishes and lettuce. The cathartic pills were repeated, and again without result. On Monday, the patient was feeling better and resumed his work in the fields. In the afternoon, he ate a large handfull of ripe mulberries, which, without removing the stems, he swallowed after chewing but little. At midnight, the patient was taken with a sharp pain in the pit of the stomach, and at 2 a. m. I was called to see him.

I found the patient complaining of nausea and of pain in the epigastrium, and gave a history of absence of bowel movement for three days. On examination the abdomen was found to be moderately distended, but not markedly tympanitic, and no tenderness on pressure, except in the epigastric region. No tumor was palpable in any part of the abdomen. The temperature was normal and the pulse 65. With a history of chronic constipation and of having recently eaten immoderately of substances that leave a large amount of indigestible residue, and having had no action from the bowels for three days, I was of the opinion that it was a condition of fecal impaction. Repeated colonic flushings, however, brought away only a small quantity of bowel contents containing a few bits of the lettuce that he had eaten two days before. The high injections having quieted the pain and relieved the nausea, the patient was left, after giving him a high enema of two ounces of castor oil through the colon tube. On the following morning, the patient had a temperature of 101 F., and pulse of 100. The pain in the epigastrium had ceased, but there was pain and dulness in the right lumbar region, where a mass could be distinctly palpated. The abdomen was more distended and tympanitic, and the patient was vomiting occasionally, the contents of which were chiefly bile with a slight fecal odor. No result having been obtained from the oil injection, another high enema of soapsuds and water was tried without effect. The patient was then brought to hospital and operated on without delay.

On opening the abdomen through a median incision, because of the uncertainty of the exact situation of the obstruction, the small intestine was found to be much distended, but in good condition; the transverse colon empty and healthy in appearance. The ascending colon was found to be covered and bound down with old inflammatory adhesions, which extended from the base of the cecum to the hepatic flexure of the colon, and a markedly constricted portion at about the junction of the cecum with the ascending colon. The cecum was likewise bound down and filled with bowel contents. The appendix was not readily found. After considerable effort, the adhesions were separated, and in doing so an abscess cavity was opened up in the retro-cecal fossa, that contained an ounce and a half

of foul smelling pus, two fecal concretions of about one-half inch in diameter, and the remains of the appendix. The latter was lying behind the cecum and the ascending colon, and extended upward toward the liver for a distance of about five inches. A part of the wall of the appendix, at about two inches from its cecal origin, had sloughed into the abscess cavity of which the appendix formed a part of the outer wall. After wiping out the abscess cavity, the appendix was freed from its attachments, ligated and removed, and the remaining adhesions of the colon and cecum were broken up. These being apparently in good condition, an extensive gauze drain was inserted and the abdomen closed.

Following the operation, a large amount of gas was passed per rectum, and on the following day, after an enema, a copious stool, containing a quantity of undigested lettuce and mulberries. On removing the gauze drain on the fourth day, the existence of a fecal fistula was made manifest by the presence of bowel contents in the wound. The convalescence was otherwise uneventful. The abdominal wound healed quickly, with the exception of a small fistulous tract, that persisted for several weeks before it closed. The patient has resumed his avocation as a farmer, his bowels are moving regularly, and he is now enjoying better health than at any previous time in his life.

As to the location of the incision one must be guided by the symptoms and the condition of the individual case and when these are indefinite one should open in the midline. Professor von Haecckel¹⁰ of Stettin says that in cases of intestinal obstruction without a clear history of appendicitis, the abdomen should be opened in the median line and search made for the place of the obstruction. If the obstruction is caused by adhesions not associated with abscess they are to be freed in the usual way. If the abscess is in the appendiceal region a special incision should be made over the cecal region for the better emptying of the contents and drainage.

In this case there was no history of attacks of appendicitis and there were no symptoms pointing to an appendiceal involvement; in fact there was nothing to indicate the character of the obstructive lesion previous to the opening of the abdomen. A counter opening for drainage was not thought to be necessary. After the abdomen was opened search was made for the appendix but it was not found until it was uncovered lying behind the cecum and colon after breaking up the adhesions that entirely concealed it. Under such conditions it is often difficult to locate. B. Merrill Ricketts¹¹ reports the case of a patient who after three attacks of appendicitis had been operated on by another surgeon and the abdomen closed with the statement that the appendix could not be found. Ricketts diagnosed a concealed appendix and operated. A small but long appendix was found, after much difficulty, to be lying subperitoneal on the posterior surface of the cecum.

10. Von Haecckel: *Deutsche Zeitschrift für Chirurgie*, 1907, lxxxviii, S. 170.

11. Ricketts, B. Merrill: *Cinn. Lancet-Clinic*, May 25, 1907.

The two enteroliths that were found in the abscess cavity were smooth, oval, of moderate hardness and consisted of inspissated fecal matter. They were first thought to be gall-stones that had escaped from the gall-bladder by ulceration, but the gall-bladder was examined and found to be healthy and to contain no stones. Fecal concretions in the appendix serve to incite the secretion of mucus with its salts in excess¹² and their presence and their attrition are important factors in causing ulceration and in provoking an attack of appendicitis which frequently ends in perforation or gangrene.

One of the unpleasant features of this class of cases is the fecal fistula that so frequently complicates the convalescence. Fortunately they heal kindly and are of short duration. According to Kelly¹³ a fecal fistula is one of the commonest sequelæ to an operation for appendicitis, especially when the disease has advanced to suppuration and abscess. A fistula is particularly apt to follow one of those old, inflamed appendices found lying behind and outside the cecum and so densely adherent that any attempt to dig the organ out of its bed is almost certain to be accompanied by a rupture of the outer coats of the bowel; such an occurrence, possibly not recognized at the time, may be followed by the sloughing of the remaining thin septum and the escape of the contents of the bowel.

In my case the presence of the fistula was not manifest until after the removal of the gauze drainage on the fourth day. It is possible that in the removal of the gauze some traumatism may have occurred to the ulcerated and thin-walled colon but the fistula rapidly closed and in a few days had almost ceased, only a small opening, from which escaped a small quantity of thin fluid, persisted for about three weeks and then closed quickly after discharging a short bit of silk ligature that had been used in ligating the denser adhesions and which doubtless helped to keep open the fistulous track.

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HYPNOTISM AS A THERAPEUTIC AGENT *

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The regulation and conventional mode of treating the subject of hypnotism is to give a historical and biographical résumé of everything and everybody more or less intimately connected with the subject, starting with Messmer and following the varying fortunes of the subject down to modern times. This phase of the subject, though very interesting and full of food for

thought, I do not propose to develop, presuming that most of you have at sometime or other gone over the subject at least sufficiently to give you an historical acquaintance with it.

The average medical practitioner, however, when questioned about the subject, is as full of vagaries and misconceptions as is the average layman. It is only occasionally that one meets with a doctor who is even fairly well informed theoretically, and it is very rare—so rare as to be an event—that one is encountered who is not only theoretically well posted, but able to use hypnotism intelligently where its use is indicated. I do not know of any subject the study of which is so fraught with difficulties and misconceptions, so many errors encountered, so many bizarre ideas interwoven, so much defunct and ridiculous philosophy appended; so many, so various and widely divergent systems of so-called religion interwoven as in the study of hypnotic suggestion. Now, this is not as it should be; you should at least be thoroughly conversant with the subject, whether you think it wise or politic to use it or not, and no medical school or medical department of any university is justified in graduating students without giving them thorough instructions upon the subject, and then let them decide upon the advisability of using it in their practice.

The scope of this paper will be too brief to go fully into the philosophy and psychology of the subject, but it will be my endeavor to make plain some of the more practical points, particularly as they relate to therapeutic use. There are a great many other interesting features connected with the subject, not directly bearing on medicine, with which it is well worth your while to familiarize yourselves, but which cannot be discussed in a paper of this character.

By hypnotism as discussed in this paper, is meant the induction, to a more or less perfect degree, in an artificial manner, of a more or less natural sleep, with the objective faculties in abeyance, and the subjective faculties in full activity. Now what, then, do we accomplish by such a process? To explain this it is necessary to go a little deeper into psychology, and in doing so I will try to avoid the controversial points as much as possible.

It is pretty generally admitted that the human mind consists of two main parts or divisions, which are known under many different names and which will be referred to here as the conscious and subconscious minds. This is known as the doctrine of duality of mind. The conscious mind has dominion over the ordinary voluntary acts of life, and its highest attribute is reason. The subjective or subconscious mind is, in a manner, independent of the conscious. Its dominion is to control all the automatic acts and functions of the body; contains the memory and

¹² Kelly: Loc. cit.

¹³ Kelly: Loc. cit.

* Read in the Medical Section, Missouri State Medical Association, May, 1910.

emotions and is the custodian of the reserve strength of the body, which may be called into use during times of extraordinary peril or danger to the individual.

There are two cardinal principles in psychology which should be ever borne in mind, as they have a very direct bearing on the therapeutic value of hypnotism; they are:

First, that the ordinary objective or conscious mind of normal man cannot be controlled against its will by the suggestions of another, when those suggestions are contrary to the experience, training, principles or reason of the individual. Second, that the subjective or subconscious mind, in the hypnotic state, is always subject to suggestion and will unquestionably accept as true any suggestion made, regardless of whether or not it violates reason.

The correct understanding of these facts is a *sine qua non* for the proper understanding and successful use of hypnotism and psychotherapy. The subjective mind is, as pointed out, the storehouse of memory, emotions, automatic functions, and is also the storehouse of associated ideas. It is a law in psychology that associated ideas, emotions, movements, sensations and functions, after numerous repetitions, become grouped together into a chain or system, called a complex. Such a group, after being repeated a sufficient number of times to become associated or habitual, is no longer voluntary, but becomes unconscious and automatic, and as such is the product of the subconscious mind. When the idea complex is one which promotes the mental or physical well being of the individual it is called normal. When the complex is one which distorts his mental view, or perverts some function, it is abnormal. Now, it is just here that the application and mode of operation in hypnotism applies, bearing in mind: first, that some morbid idea-complex is the basis of most functional disturbances, particularly nervous disturbances. Second, that the idea-complex, being a resident of the subconscious mind—and the subconscious mind being unquestionably amenable to suggestion in the hypnotic state—it follows that we have in hypnotism a means of breaking up the morbid associated idea complex and substituting therefor a normal group of ideas which may be built up into a synthesis, which permits again normal functions and coopts the individual to his surroundings.

This, in brief, explains the action of hypnotic suggestion, remembering always that hypnotism is not in itself curative, but that it heightens suggestibility and enables us, as it were, to seize the mind, to force out morbid ideas and substitute ideas antagonistic to them.

The troubles produced by these morbid associated idea-complexes are of a functional nature; and by functional I mean an abnormal condition in which the normal psychological or physiologi-

cal processes are perverted or suppressed, starting often in some very acutely distressing experience, and in the beginning without any demonstrable pathologic change. As an illustration of the mental and physical conditions of distress and suffering which may follow a mental cause may be cited the very common cases of sexual neurasthenia. They come to you complaining of loss of sexual power, weakness, headache and all the other symptoms which you all know very well, as you undoubtedly see such cases very frequently. They are victims of illogical, deficient and perverted reasoning, and it comes about in this way: they have read or heard that masturbation is followed by headaches, weakness, flushing, weak erection, finally loss of sexual power. They remember that in their youth they masturbated. Then they gradually, either consciously or unconsciously, reduce the subject matter to a syllogism, as follows: masturbation is followed by certain symptoms and loss of sexual power. They had masturbated; consequently, therefore, they should be and are subject to those symptoms and loss of power which follow masturbation. By inquiry in cases of this sort you can easily prove that this pretty closely approaches their mental process. This mental state is a result of a morbid idea-complex, and very soon shows its effect in the perversion of the normal physical processes.

Treatment by suggestion may be divided into two main classifications: first, by psychotherapy, so-called, which is suggestion in the waking state. Second, by hypnotism, or in a state of suspended conscious cerebration.

Psychotherapy, as understood to-day, is suggestion in the waking state, and is the application of more or less pure reason, applied by the physician to the patient, and is sharply limited in its scope not only by the character of the disease under treatment but by the amount of logic and reasoning power possessed by the operator and by the intelligence, education and ability on the part of the patient to follow more or less abstract reasoning. It is further limited by the fact that before one can become proficient in the practice of waking psychotherapy he must have a very minute knowledge of the disease under treatment, and more particularly a knowledge of the mental processes of the patient. He must know what thought will strike the patient under given circumstances, and the logical train of thought and actions which will be likely to follow upon such primary ideas. To develop such an intimate and accurate knowledge presupposes unusual power of observation and unusual ability on the part of the operator—unusual judgment, logic and reasoning power, and daily contact and experience with patients of this class for a period of time of not less than several years.

Given all these requirements, which it is needless to say not every physician can command, and we have in psychotherapy, or suggestion in the waking state, a very valuable weapon which may be used in exactly the same diseased states as may hypnotism, and applied to a larger class of patients, also to patients in whom, for any reason whatever, it is undesirable to resort to hypnotism. Theoretically, psychotherapy, or suggestion in the waking state, would seem to be much more valuable than hypnotism and of much wider applicability; but practically, by reason of the conditions mentioned above as essential to its profitable employment, its use is circumscribed to very small limits, and those who can practice it successfully are few, indeed. The process, in brief, of waking psychotherapy requires, first, the discovery of the subconscious residua of the morbid idea-complex; second, the dissociation, or breaking up of the morbid idea-complex; third, the synthesis, or rearranging the idea into a complex antagonistic to that obtaining in the diseased state; in other words, is more or less an educational or reeducational process.

Hypnotism, on the other hand, while possibly a little more trouble, is, when it can be induced, a very much more certain procedure. It is still necessary to make a correct diagnosis; it is just as important in hypnotism as in waking psychotherapy to discover the morbid idea-complex, but when that is done and you have induced the hypnotic state to the stage of amnesia, you have, by reason of the suggestibility of the subconscious mind, a fairly certain mode of uprooting the morbid complex, and interrupting and banishing all the distressing and annoying symptoms which have arisen in consequence of the formation of such a chain or group of associated ideas.

This method constitutes suggestion in its purest form, applied directly and without intermediary to the seat of suggestibility, the subconscious or subjective mind, and indirectly through it to the conscious mind.

There are many other methods of healing by psychical means, known by many names and in all ages and among all creeds. Some of the more recent ones need but be mentioned, such as Christian science, mind cure, faith cure, spirit cure and lately the so-called Emmanuel movement. Many religious phenomena and cures of ancient and modern times depend upon and are explained by the principle of suggestion, such as the phenomena produced by the Brahmin Yoggi, the Buddhist Samana, the Egyptian priests and many others.

Now, under all these various systems, we have undoubted evidence, often upon unimpeachable testimony, of the occurrence of cures of various kinds and of various degrees of importance, many appearing to the uninformed to be almost

miraculous. These various systems differ widely and radically on almost every point, but on one thing they are agreed: they all cure diseases, and in that we, as medical men, should be most vitally interested. Now, if they all cure diseases without the use of medicines or physical means, there must be some underlying principle upon which they are dependent, and through which the cures occur, and that principle is suggestion.

In most, though not in all, of these various systems of treatment, waking suggestion is used, the only thing necessary on the part of the patient being passivity, non-resistance to the healing suggestions, and if accompanied by faith in the system, the result will be all the more powerful. In other words, the conditions necessary for a cure to be worked by any of these operators of "isms" are absolutely and positively the same conditions which are required as a prerequisite and condition to hypnotic or psychotherapeutic treatment.

As a general rule, for guidance in the use of hypnotism as a therapeutic agent, it may be safely said to be applicable and to have its greatest range of usefulness in all functional nervous diseases, and to be contraindicated in all organic diseases, although even here it is possible by its use to obtain an amelioration of symptoms, though a cure is not, of course, under such circumstances, to be expected nor claimed. Among the conditions which may be benefited by suggestion are hysteria, insomnia when not due to organic causes, nervous irritability, melancholia, neurasthenia, psychasthenia, sexual perversion, drug habit, drunkenness, phobias of various kinds, defects in character such as timidity, bashfulness, for the correction of vicious habits, such as masturbation and sexual perversion.

Among the organic diseases which may be benefited in some degree are insular sclerosis in which the tremor may be modified, Parkinson's disease, in which the tremor may be modified and the subjective sensations of paresthesia and burning more or less corrected, and in certain of the delusions and hallucinations of the mildly insane, and particularly in obsessions.

In conclusion let me say that I know very well that I am not imparting any new fact; to some of you the subject is very familiar, to some it is barely known; to many more it is a sealed book and a subject fraught with difficulties and darkness. But it need not so remain. And why, let me ask you, should it so remain? Is it not a legitimate weapon placed in our hands with which to fight disease? We, as physicians, sit idly by and watch thousands of our former and prospective patients consult Christian scientists, mind healers, Emmanuelists, etc., to be treated and cured by suggestion, while the rank and file of the medical profession, who should also be users of suggestion, seem too indifferent or indo-

lent to acquire proficiency in a valuable aid which they could and should use.

It is not sufficient nor scientific to scoff at these cures, or to dismiss them as frauds due to imagination, or to say that they occurred in hysterics. The main point is that they do undoubtedly occur and people get relief from their ills, otherwise they would not continue to use these various sects.

It seems to me that the only logical thing for the profession to do is to forget their antagonism to the subject of suggestion and psychotherapy. Study it carefully and apply it whenever and wherever it may best be used. It is not a cure-all; it is not intended to displace scientific observation and diagnosis; it is not a part of its application to displace other therapeutic endeavor. It is useless to try to make it usurp the domain of surgery, except, possibly at times, and in certain particular instances to produce surgical anesthesia. It is not intended to be used indiscriminately, but in selected cases and after a careful diagnosis and when in your judgment it will accomplish its purpose either quicker or better than by the use of any other means in your armamentarium, suggestion either by psychotherapy or in hypnosis is indicated.

Furthermore, I do not think that any medical school, particularly any medical department of a university, is doing justice or its duty to students or to the public at large until it introduces a thorough and comprehensive course of instruction upon psychology in general, and particularly to that part of psychology that has to do with the great law of suggestion in its relation to disease and its treatment.

DISCUSSION

Dr. C. R. Woodson, St. Joseph: I am a believer in psychotherapeutics, but one's power to practice this depends on his ability to impress, to entertain, to divert and to inspire belief. Psychotherapy and hypnotism can be of no benefit to the individual suffering from acute mania, or general paresis, or any organic disease of pronounced type. You cannot help being impressed with the value of psychotherapy when you are called to see a patient who has always had implicit confidence in you and during your absence has been treated by someone else who, perhaps, was pursuing the same line of treatment you employ and you note the quick improvement. Enter the room of a hysterical patient with the good women rubbing and fanning, and holding smelling salts to the patient's nose, and you will find there is no elevation of temperature, no heart lesion, and when you say, "step aside, ladies, and but one of you remain as nurse," and assure the individual that she is in no danger, see how quickly she comes out of the attack. Take the individual with a fixed delusion of an extremely unpleasant type, leading not only to mental but to muscular agitation, and if you try to assure this mother that her children are not being killed, or are not dead, you may talk to her for hours and not impress her, but if you get back to her childhood days, to her school days, or to anything that will lead her entirely away from this miserable mental picture, she will converse rationally. Take an individual with a pronounced melancholia free from delusions but with intense mental pain, or an individual who has a delusion of persecution or

morbid suspicion; you may tell that individual that these things are not facts but are the result of perverted brain cell action, but to the individual who has these delusions they are as real as reality. The woman who believes her child is to be burned believes it as fully as we believe we are here to-night. But if the nurse or the physician can lead these patients away from this idea, let it be in a monotonous manner, if you please, the patient will soon fall asleep. The patient may be taken for a drive, or be interested in a game or a conversation and the effect is the same. There is no doubt there is something in it, and your duty is to divert and to relieve these patients.

As to the hypnotic end of this paper my experience leads me to believe that if it has any place at all—and I have not any experience in either of these lines—it may be in surgery or that it is good for shows. It is certainly a drawing card for shows. The individual who tries hypnotism in the treatment of mania or hysteria will aggravate the case and make bad matters worse. I do not know of any one at present who is advocating this to any extensive degree. Perhaps Claretot has given as much attention to this as anyone, but I do not know of anyone who is following him. I believe that decided injury follows efforts, even successful efforts, to hypnotize nervous women, neurasthenics or melancholics.

DR. R. WILLMAN, St. Joseph: This paper is of general importance at this time and it is a discussion that should be carried on by every physician. Every physician should be posted on that question and it ought to be a part of the teaching in the medical schools. Hypnotism is only one form of suggestion and suggestion is something that every physician should know, and most of them do know it and have been using it unconsciously if not consciously in his practice. The fakers have been using it and reputable physicians are to blame because they do not use it enough. We should speak of suggestion, or reason, but reasoning is the real word to use. Suggestion may do good in a way; reasoning tends to divert the mind. The only person capable of using hypnotism is the physician. Hypnotism should not be allowed to be practiced by the laity at all. The laymen do not know anything about its value, or the harm that may result from it. The laymen should be educated along this line that hypnotism does not heal. There is no healing property in hypnotism as such.

DR. BRADLEY, in closing: I merely want to impress on you that suggestion is not to be used in any organic lesion whatever, but only in functional trouble, and then only in certain cases. I was astonished to hear one gentleman say that while he had no experience in hypnotism, it was only good for showmen. If he has had no experience with it, I do not see how he could know whether it was good or bad. He admits the minor premise that suggestion in the waking state is of value, but denies the major premise, that suggestion in hypnosis, which is very much more powerful, is of no value.

CHRONIC MASTOIDITIS AND CHOLESTEATOMA Complicated with Sinus Thrombosis and Internal Jugular Vein Thrombosis; Operation, Demon- stration of Patient and Specimen*

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This case is of interest not only because it is a rare condition but because the condition was so far advanced. When this patient was a boy

* Read before the Oto-Laryngological Section, St. Louis Medical Society, Sept. 28, 1910.

of 10 years, having at that time a suppurative condition in the middle ear, he went to the family doctor and the doctor told him to go home and the ear would take care of itself. From that time until the operation was performed his ear had absolutely no attention whatever. When he first came to the office Dr. Goldstein saw him and made a diagnosis of typical otitis media chronica suppurativa. There were polypoid growths in the ear and a very foul-smelling discharge. On the same day Dr. Goldstein curetted the granulation tissue from the ear. Two or three days afterward I saw the ear; there was a very foul-smelling discharge, the annulus was eroded and the polypoid tissue had a tendency to grow very rapidly. He felt well but came back three days later complaining of dizziness. With a Siegel otoscope I found that on rarefaction of the air in the middle ear intense dizziness and nystagmus resulted. On a repetition of the process he became so dizzy he had to be lifted out of his chair and placed in a reclining position and felt very bad. He had a temperature of 101 and was sent to the Rebekah Hospital where I saw him next day. He went to the hospital on July 10; when put to bed his temperature was 98.1, but it went up that evening to 102.2 axillary, then down to 102, then as high as 104.2 axillary, and I found a very marked irritability. The abdominal and patellar reflexes were much exaggerated and he had a Babinski. He complained at that time of a very severe pain in his head, more severe on the affected side. His temperature never went lower than 100.2 axillary, for two days. I made a lumbar puncture and found nothing but perfectly clear cerebrospinal fluid. The day following the lumbar puncture Dr. Pfingsten and I decided to make a nystagmus test. The result of the test with hot and cold water was very unsatisfactory. We then used the compression and rarefaction test and there was a very marked nystagmus. Following this test he had intense pain in the head. The cerebrospinal fluid being clear and in the presence of this intense pain, continued high temperature and very foul-smelling discharge from the ear, we decided to go into the antrum at once. So that night we put the patient on the table and started to do a radical mastoid, then when we reached the antrum we found it filled with a cholesteatomatous mass extending back to the sinus, and I should judge, possibly half an inch on the surface of the sinus was covered with thick granulation tissue, and the sinus was simply as hard as a rock. When we cut through the shell of bone over the antrum and sinus, the sinus was completely exposed; we then decided to go into the neck. The patient had had no difficulty in the neck, no cord-like swelling and no inflammation, nothing to give us any suspicion of trouble there; in fact, we were surprised at the condition in the sinus. The high tempera-

ture and the tremendous nervous irritation made us think of meningitis. We opened the neck making the ordinary incision along the anterior border of the sterno-mastoid muscle, cutting down to the carotid sheath, and then our difficulties began; instead of finding the vein in its usual position we found no vein at all; we looked anterior and posterior, above and below; I think I searched for three-quarters of an hour in every conceivable place for it; I tried to save as much of the vital anatomy as possible and had to clamp but one branch of the carotid. I was dissecting with a small mosquito artery forcep and while separating the tissue along the front of the vertebral column I noticed a sudden flow of gelatinous, black fluid. I knew something must be happening and I soon found the cord-like vein that could scarcely be differentiated from the surrounding tissue; I can hardly tell you what position it was in, except that it was tucked away down near the vertebral column. I found that the thrombosed portion of that vein extended down to about $1\frac{1}{4}$ inches above the clavicle; I tied the vein off below the thrombosed portion and dissected it out entirely and put an ordinary drain in the neck wound and then went back to the bulbous portion of it and curetted out as much as I could. I then completed the radical mastoid, with the exception of the flap, leaving the wound practically open, and sent the patient to bed. The procedure was not gratifying, inasmuch as it took over three hours; we spent most of our time on the vein. Following the operation the temperature immediately began to drop and the next day it was normal and at the end of two weeks the jugular wound was entirely healed. The bulbous portion of the vein gave out its thrombosed material and the wound was perfectly clean. About three weeks later I closed up the mastoid wound and the man made a very speedy recovery.

I wondered why I had experienced such difficulties in finding this vein, so I looked up the literature and I find there are five cases reported in which the internal jugular vein was never found during the operation and I discovered two cases in which even at autopsy the internal jugular was not found. There is a tremendous irregularity in the reports of these cases of jugular vein thrombosis; there seems to be no particular set procedure, whether to ligate the jugular before opening the sinus, or whether to do the sinus work first. Koerner collected 308 cases and tabulates them as follows:

Ligation of the jugular vein without opening the sinus, 9 cases; 4 deaths, 5 cured.

Sinus opened without ligation of the jugular, 130 cases; 55 deaths, 75 cures.

Ligation of jugular with resection before opening sinus, 94 cases; 36 deaths, 2 doubtful, 56 cures.

Ligation of jugular after opening sinus, 68 cases; 1 doubtful, 29 deaths, 38 cures.

Ligation of jugular and sinus opened, 5 cases; 1 death, 4 cures.

Of the 308 cases, the mortality was 58.4 per cent. You see, you cannot tell exactly what you are going into; but the point I want to bring out is, just what procedure is best—whether to go immediately down to the jugular and deal with the sinus afterward, or whether to deal with the sinus first. We know that when we make our incision, by retracting the anterior border of the muscle we are supposed to find this vein.

Just a few days after this happened I had occasion to open up another sinus and tie off the internal jugular vein. This case was very peculiar: there was a history of chronic suppuration since four years of age, there was evidence of bone necrosis and polypi of the ear. I did a radical mastoid operation and found an intensely dense sclerotic mastoid. The patient got along all right until two days after the operation, when his temperature began fluctuating, gradually going up. He then developed a chill and symptoms of sinus thrombosis. We went in and had the greatest difficulty in finding the sinus. The previous mastoid wound was in perfect condition and there was no sign of suppuration; but when we reached the mastoid tip we found there the sinus involvement: we went down to the vein immediately and I think I was there ten minutes tying off the vein and facial branch, severing them and closing up the wound. The vein in this case was in the normal position.

In those two cases, there was another point that might have some bearing on the prognosis. In the first case we found a plug thrombus. There are two forms of thrombosis, the plug thrombus and the wall thrombus. In the first case we were able to scoop out the plug and get a perfect flow of blood. In the second case it was a wall thrombus and it was very difficult to get it out. We had to work our way under it and simply curette it off the wall. It extended very far back, too. I mention this to bring out the points of the surgical treatment in reference to the prognosis. From what I saw of these two varieties of cases, it would suggest to my mind a very radical procedure in the case of wall thrombosis, because there is no telling how far it is going to extend. In this second case we had to operate the third time, and I found an opaque spot in the sinus wall and on lifting that up the pus oozed out and I simply held a tube curette and let it go gently down and down until it went into a cerebellar abscess. Evidently that thrombus had simply worked its way through to the cerebellum and this necrotic spot was the avenue of entrance. That patient unfortunately died. I make that point, because if in the first place we had been as radical as we were when we found the cerebellar abscess, the result might have been different.

One other point about sinus cases, particularly jugular vein thrombosis. There are all sorts of tests for ascertaining these conditions, but in

each of these cases they were thoroughly atypical. The first exhibited no sign of any trouble in the neck; there was not the typical temperature; I was almost positive before I made the puncture that it was a meningitis possibly developing from the middle ear condition. Just about the time I made my puncture the temperature dropped down, suggesting the ear trouble. In the second case the symptoms, except the temperature, were wholly atypical, for he had had absolutely no pain, even that night, with a temperature normal, he became completely unconscious; after that the temperature went up until next day it was 105.

THE BLADDER IN INGUINAL AND FEMORAL HERNIÆ; WITH REPORT OF TWELVE CASES*

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Although most surgeons are now, and have been for some time, aware that the urinary bladder might be encountered during an operation for the cure of hernia, it is quite true that in most cases where the bladder was found it was accidentally cut. Such an accident may result in very serious consequences to the patient, or even in death; as in a case known to me but not here reported. The principal reason why the bladder, when present in the hernia, is so frequently cut is, that the possibility of its presence at this point does not occur to the operator, consequently he is unprepared for the emergency.

The finding of a process of bladder in a hernial sac (true intraperitoneal bladder hernia) in a case operated by me last June, caused me to look up the literature on the subject; and, while I have been unable to read everything that has been written thereon, a search through the best German, French, English and American periodicals has strongly impressed me with the belief that bladder hernia is by no means as rare as it is supposed to be (1 per cent. to 2 per cent. according to most authors). Furthermore, only a small proportion of the cases encountered is published, a fact that has been made very plain to me since I have been able to collect among my colleagues in St. Louis eleven unpublished cases; in addition to these I know of two others that I have not permission to publish.

It was Verdier (1753) who first described the condition and from that time until Aue published an article and reported fifty-six cases, in 1891, nothing much had been published on the subject. Since then, much has been written on the subject and many cases have been reported. The best articles on the subject are those of Aue, Eggenberger, Guterbock, Guépin, Karewski and Brunner. The last article is that of Eggenberger

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

and it is an excellent one. He collected 105 cases, 100 of which had been published in the preceding ten years, 1898-1908, five of the cases being from the clinic in Basel where he is assistant. He estimated that the mortality of those cases in which the bladder had been wounded was 6 per cent.

The fatalities of the operation for the radical cure of hernia should not be due to wounding of the bladder, for the bladder ought not to be wounded, and it will not be if the surgeon will always bear in mind the possibility of this organ being in dangerous proximity to the field of operation.

Etiology.—Verdier, insisted that bladder herniæ were always acquired and agreed with Petit in refuting the theory of Mery that they were congenital. That they are acquired is to-day the generally accepted opinion, although Lucas-Championniere still holds that they are congenital.

The causes for hernia of a portion of the bladder may be both remote and immediate. All the causes which predispose to inguinal or femoral hernia may be considered as remote causes of bladder hernia. I will first consider the anatomic factors in the etiology since I think they are the most important.

The peritoneum is quite firmly attached to the postero-superior surface of the bladder, and more so in old persons since attacks of cystitis cause a still more firm adherence of these two membranes. I quite agree with those authors (French and English) who believe that the peritoneum descending into a hernial sac may draw a part of the bladder along with it.

I once found in the dissecting room and preserved for several years in the museum, a specimen in which the obliterated hypogastric artery of the left side was carried up over the postero-superior surface of the bladder near the middle line onto the abdominal wall; a pocket lined by peritoneum lay at the left side and in front of the bladder, as far as the middle line. This pocket extended downward to the pelvic floor. In that specimen three-quarters of the surface of the empty bladder were covered by peritoneum. It would have been easy for a part of such a bladder to have been pushed into a hernial sac, just as a loop of bowel often is.

In a series of dissections that I made, I found that in four out of ten subjects, the lateral true ligaments of the bladder were carried upward entirely to the apex of the bladder and extended laterally not only to the wall of the true pelvis, but beyond and over the pelvic brim gradually blending with the fascia transversalis and well to the outer side of the external inguinal fossa. Were this continuation of the lateral true ligament pushed out in advance of the hernial sac, it is quite believable that a part of the bladder might be drawn after it.

Roth ascribes to Cloquet the theory that lipomata migrate along blood-vessels. Many others believe that the prevesical fat plays an important rôle in the etiology; that this fat grows in masses adherent to the anterior wall of the bladder, and that these masses, growing outward, become engaged in the hernial orifice, dragging the bladder along with them. Such a condition was found by Treves, Roth, Lanz and others. The importance of the rôle played by fat in the etiology of hernia of the linea alba is emphasized by English surgeons. If fat can make an opening for, and draw out with it, a process of peritoneum, I see no reason for doubting that it might do the same with the bladder when lying in front of it.

In certain subjects one finds more of the bladder on one side of the median line than on the other. Such bladders, when distended, lie well to one side, a condition which might without doubt predispose to bladder hernia.

With regard to the age, the youngest case is reported by Corner which occurred in an 18-months-old child; Cossman reports one in a 10-year-old girl, and Eggenberger cites one in a child of 11. These are the only cases under 21 years that I find recorded; and yet Mr. Lane says he has often seen the condition in children. From 50 to 60 in men, and from 30 to 40 in women are the ages of greatest predisposition. One remarks at once that these are the ages of prostatic hypertrophy and greatest child-bearing activity, respectively.

The condition is found more often in the male, the proportion being three to one for the inguinal type, but the femoral variety is found more frequently in women. This difference in the sexes is perhaps more apparent than real, since operations for the cure of inguinal and femoral herniæ are more common in male patients. Like other herniæ, those of the bladder are more frequently found in people of the laboring class.

Such diseases as chronic bronchitis, emphysema and asthma predispose to the condition, as do pregnancy and parturition in females and prostatic hypertrophy and strictures in males. Cystitis, also, by causing firm growth of the peritoneum to the bladder is a factor.

Over-distention of the bladder may be a direct cause; in one of Eggenberger's series the patient, a lying-in woman, was obliged to retain her urine over-long, when suddenly she felt something give way in the region of the groin. Frequent over-distention also thins the walls and causes loss of tonicity in the muscle. Such a bladder partly filled may extend further laterally than in normal conditions.

Karewski, experimenting on the cadaver, was able to produce a bladder hernia by pressure from above downward and forward on its upper surface. He therefore concluded that meteorism might be a factor in the production of bladder hernia.

Pathology.—The extent of bladder surface found outside the abdomen in these herniæ varies from a portion the size of a walnut to "almost the entire bladder," as in Baldwin's case. A recent edition of a large work on general surgery says, in discussing bladder herniæ, "even the prostate may be found"; but no references are given. I take the statement to refer not to either inguinal or femoral hernia. I have found no case of complete hernia of the bladder recorded.

The herniated portion of the bladder may be outside the sac or within it. The latter condition is very rare, only five cases (Brunner) besides my own being on record. In some of the intraperitoneal cases the bladder has caused a bulging into the posterior wall of the sac, but in these the portion of bladder in the hernia is not entirely covered by peritoneum. In the true intraperitoneal variety—that is when a part of the bladder entirely covered by peritoneum is found in the sac—the wall of the bladder is usually much thinner than one expects bladder wall to be and may consist only of mucous membrane covered by peritoneum—a diverticulum extruded from a "fasciculated bladder." The color of the process is generally grayish, or pinkish-gray, and muscle fibers may form a sort of net-work under the peritoneum. Of course, if strangulated, as in my case, the color changes with the duration and degree of strangulation. The process may contain urine or not; it is natural to suppose that it does contain urine when the patient stands and when recumbent as well, if the bladder be distended. The orifice of communication between a herniated diverticulum and the bladder, usually small, tends to grow smaller. This tendency is increased by the tension exerted on its fundus or body, if it stray into a hernial sac; by the continued hypertrophy of the fasciculi surrounding the orifice; or by swelling of the mucous membrane of the bladder as in cystitis. This narrowing of its mouth may increase until it is completely shut off from communication with the bladder; the retained urine decomposes and may lead to inflammation of its walls and it may become a veritable abscess cavity, as one reported by Tedenat. A case is reported by Corner in which such a diverticulum had become tuberculous, while the bladder itself was uninvolved. It is said by many writers that a calculus may develop in such a herniated process. I do not doubt that it may but I find no record of stone having been found. Cases are reported where the contained fluid was clear, non-albuminous fluid (Guterbock). It has been said that the cavity of the diverticulum may become obliterated, and Roth cited a case in which "a hard reddish-brown body, walnut size, was found; an incision revealed no cavity, but traction on it brought out bladder wall." There is nothing said to prove that this hard mass was a diverticulum. It is possible for strangulation to occur. In my case

the neck of the herniated process showed a small, oblong, necrotic area where it had pressed against the obliterated hypogastric artery.

Other viscera, usually intestine, have always been found in the sac along with the herniated process of bladder; and Lejars found such a process lying beside a Fallopian tube in one case. The process may become adherent to other viscera or to the sac wall, as in my case.

In the extra-peritoneal variety a part of the bladder may lie in front of the sac, at its inner side, or behind it; but if lying behind, it usually bulges into the sac, and these have been wrongly considered as intra-peritoneal.

When lying in front of the sac, the bladder wall is usually covered with fat. The fat may lie in a uniform layer or present an uneven surface and be lumpy to the touch. In others, the bladder is pushed out through a weakened part of the abdominal parietes in advance, and the hernial sac follows it or not as the case may be. The largest of these herniæ is that of Baldwin. It was in the middle line and "almost the entire bladder" was present; but nothing else was found.

The paraperitoneal form, as it is called, is that in which the bladder lies to the inner side of the sac. It is supposed that in this variety, particularly, the pull of the peritoneum on the inner side of the sac has drawn the bladder partly out of the abdomen. The peritoneum of the inner side of the sac is always firmly adherent to the outer side of the herniated part of the bladder, and the longer the hernia exists, the more firmly adherent do they become to each other owing to the pressure, or perhaps to the occurrence of cystitis in the herniated bladder. The portion of the bladder remote from the sac is usually covered with fat; but this may not be the case and one may be able to see the network of muscle fibers in the bladder wall. The thickness of the herniated bladder wall in the extraperitoneal form varies from the thinness of paper, as in cases of Guterbock and Hache where the process was taken for a thin-walled encysted hydrocele of the cord, to 1 inch in thickness, as in the case of Baldwin. The contained fluid may vary in amount; the bladder, in fact, may be found empty, although it is usual to find urine in the process or part. The amount varies with the position of the patient and the degree of distention of the bladder. It is said that here, too, the urine may undergo decomposition, that the process may contain pus or even a calculus. I find that the like, except stone, has happened in cases of the intraperitoneal variety but not in the extraperitoneal form.

The hernia is sometimes found to be a bilocular one, the bladder coming out to the inner side of the deep epigastric artery and an ordinary hernial sac to the outer side of the same. In these, the inner wall of the sac is not tightly adherent to bladder wall.

A bladder hernia, although reducible in its early stage, soon becomes irreducible because of the facility with which the prevesical fat grows fast to the surrounding structures.

Ssalistschew found the urachus lengthened and thinned in one case, and Englisch found the "lateral ligament" (I do not know what is meant by this expression) shrunk and twisted. The former also says that atrophy of the bladder is common, but I do not find a single case in which such atrophy existed.

Bakunin is said to have found bladder on both sides present in a double inguinal hernia. But I have been unable to find the original report.

Symptoms.—Hernia of the bladder gives definite symptoms in very few cases—in less than 10 per cent. is the opinion of most authors—and this accounts for the failure in about 90 per cent. of the cases to make the diagnosis before the operation. When sought for, however, one ought to be able to find symptoms or signs of the condition if any considerable amount of the bladder be herniated.

Pain on urination has been often noted, yet pain in a hernia during or before urination is not unusual if there be obstruction to the outflow.

Some patients have remarked that the hernia was smaller after urination (Róth) and in one of Richter's cases the tumor softened as the urine flowed. In a case cited by Eggenberger the patient could not urinate without pressing on the hernia. In the case of Baldwin the patient was obliged to raise his hernia up before he could begin to urinate. The pain may be experienced before or during urination and is felt in the hernia itself, in the perineum, or at the end of the penis.

Treves called attention to the inability of the patient to wear a truss as a sign of bladder hernia, and one can readily understand how a truss might cause discomfort as all these herniæ early become irreducible.

There may be partial retention or the patient may be able to pass his urine only drop by drop (Roth).

Ssalistschew says there are "a whole row of symptoms," but beyond mentioning inability to evacuate the bladder completely he does not give any.

There may be a sense of incomplete evacuation, and this causes frequent attempts to urinate; in two cases cited by Eggenberger these symptoms were worse at night. In a case reported by Lossen there was pain in the testis of the same side, always worse when the bladder was full.

I find that painful urination, frequency, straining and ardor, are often observed; but by far the majority give no symptoms whatever.

If the hernia be strangulated, retention and the dark color of the urine, as in my own case, should warn, or if a microscope be at hand blood will be

found and serve further to put the surgeon on his guard.

The passing of a catheter in Harrington's case first called attention to the condition because of the distance it had to be inserted before urine flowed.

Diagnosis.—To make a diagnosis of bladder hernia before operation one must be on the watch in every case of hernia for symptoms or signs of bladder hernia. If we would always keep in mind the fact that the bladder is liable to be found in the hernia and make investigation, no doubt we would in a great majority of the cases be able to make the diagnosis before the operation.

In all hernia patients, then, inquiry should be made regarding urinary symptoms. The hernia might be palpated before, during and after micturition. The patient might be made to urinate while standing and then immediately to lie on the sound side or on the back so as to empty a possible diverticulum of the bladder, and then again made to urinate. The cystoscope is sometimes an aid to diagnosis and should be used in all cases. Karewski made the diagnosis in two of five cases with it. Pressure should be made on the tumor in order to see if this causes a desire to urinate. The girth of the tumor should be taken just before and after urination. A less girth afterward may be taken as a positive sign. Percussion over the tumor gives a flat note, but so it does over an omental hernia.

If the hernia be strangulated the symptoms of retention, tenesmus, or bloody urine, as in my case, ought to warn the surgeon. Symptoms of incomplete bowel obstruction make one think of Richter's hernia or hernia of omentum. Such symptoms, however, are found in strangulated bladder hernia. A rectal or vaginal examination shows great tenderness in the region of the bladder.

Roth advocated filling the bladder with fluid. He noted that more force was required to fill the bladder if a hernia existed. I believe that the injection of fluid might aid in the diagnosis if one observed that the injection increased the size of the tumor. A sound in the bladder may sometimes be so manipulated as to bring its tip into the herniated part and there may be palpated through the skin.

In about 90 per cent. of all cases the diagnosis is made at operation and in nearly all these the first sign is a gush of urine when the bladder is cut. In many cases the surgeon thinks it the sac; in others a mass of fat, and cuts it. Sometimes it is wounded in freeing the posterior wall of the sac, or again it is taken for a hydrocele of the cord.

Now, if you find masses of fat in the canal in an operation for hernia, be on your guard, the more so if this fat be hard to separate from the sac. Look closely at the wall of the sac. The peritoneum has no muscle fibers, but in a bladder

wall muscle fascicles may be seen crossing one another in various directions. The wall of the bladder is more vascular than hernial sac. A sound should be introduced into the bladder and manipulated to bring its beak toward the hernial sac. Whenever one is in doubt, the sound should be used to settle the question.

If one has opened the sac and, in trying to free its posterior or inner wall, finds that it is firmly adherent to the neighboring structures, one should again beware. Remember that the peritoneum is, normally, closely attached to the upper surface of the bladder, and in hernia the more so; therefore, in attempting to free the sac many have cut the bladder—again use the sound or distend the bladder. After having freed the sac one sometimes finds what seems to be a second sac behind or internal to the first—once more assure yourself that this is not bladder. It may be taken for an encysted hydrocele of the cord. Do not cut until you have completely isolated the tumor, or seen the cord above and below, or found a process of peritoneum connected with the tumor.

In the intraperitoneal variety the danger is that the operator mistake the herniated process for omentum and ligate and cut it off. The process is covered by peritoneum and even though there be muscular fibers in its wall they cannot be made out; or if it is merely composed of bladder mucous membrane covered by peritoneum, of course no muscle fibers can be seen. Roll it between finger and thumb; if it be omentum its walls do not glide over each other nor will it contain fluid, but bladder does one or the other. Follow the pedicle into the abdomen with the finger and if you find it passes downward to the bladder region, pass a sound or distend the bladder to make certain.

The diagnosis is sometimes made only after operation and then only if the bladder has been injured. The patient cannot void his urine, perhaps. This is not an unusual post-operative symptom, but the urine drawn per catheter is bloody. In such a case one must assure himself at once as to the condition of the bladder wall. One should inject a measured quantity of fluid sufficient to distend an ordinary bladder and then withdraw it. If the bladder has been injured less fluid comes back than was injected.

Symptoms of general peritonitis, or of uremia, may be the first indication of the condition, as in Le Conte's case, and these may first manifest themselves several days later, as in a case of Basini's.

Prognosis.—Bladder hernia do not get well of themselves, but, as a rule, if left alone they tend to grow progressively worse; nor do they get well through the wearing of a truss; rather a truss tends to produce unpleasant symptoms and is soon discarded (Le Conte).

The herniated part of the bladder seems prone to become the seat of disease and the more especially is disease liable to occur in a herniated diverticulum. The most common disease is simple cystitis. I believe it is possible for a cystitis to be set up by the wearing of a truss. The improper drainage favors stagnation of the urine and the development of cystitis, which soon becomes purulent. The cystitis may remain confined to the herniated part as in Tedenat's case or may become general. But the development of cystitis does not seem to be very common, at least it has not been remarked in very many of the cases. The process was tubercular in Corner's case and the disease was limited to the herniated part. It has been supposed that stone formation might be found as a consequence, but no case of stone in the herniated process can I find in the literature.

The presence or later development of pyelonephritis cannot positively be said to have been caused by the condition. The prognosis after operation varies with the treatment to which the bladder has been subjected. If the bladder has not been injured, but recognized and replaced, such cases ought all to get well as in operations when bladder is not present. If the bladder has been wounded whether intentionally or otherwise and the wound properly closed or drained as necessary, the prognosis with regard to life ought still to be good. If a process or part of the bladder containing infected urine or pus be inadvertently opened and the peritoneum become contaminated peritonitis is likely to ensue even though drainage be instituted at the time of operation. If a process or part of the bladder be included in the ligature applied to the neck of the sac serious consequences may follow even as late as the ninth to fourteenth day afterward, as in Thompson's and Halsted's cases respectively. The consequence of least significance in cases where the bladder has been wounded, or a part tied off, is the production of a urinary fistula at the site of the wound while the occurrence of infiltration, cellulitis, abscess, local or general peritonitis or death may be a consequence. Or death due to hemorrhage or with uremic symptoms has followed.

If the mistake, however, be discovered in time and proper treatment given, recovery ought to follow. Blanc reoperated twenty hours later, controlled hemorrhage, sutured the bladder and recovery followed. Such instances are frequent.

One notes in some that the hernia has followed a previous operation (Lanz) or that the bladder hernia has recurred and Galeazzi says the bladder hernia is prone to recur. I do not know on what evidence he bases his conclusion as I am convinced that according to the records of over 150 cases, recurrence in bladder hernia is not more common than recurrence when the bladder was not found.

If the vesical mucosa be sutured (as it should not be) at the time of operation, the suture material may serve as a nucleus for vesical calculus.

In cases where the bladder is unknowingly wounded at operation and the diagnosis made only after some hours have passed, the prognosis is quite unfavorable, but in those in which the bladder has been wounded and the diagnosis made at once and the proper treatment instituted, the accident ought not to be one of much consequence. Naturally the result in these cases depends somewhat on the condition of the urine. In the first class of cases Eggenberger placed the mortality at 30 to 40 per cent. and in these others at from 6 to 16 per cent. (109 cases).

A urinary fistula is not an unfrequent sequel, but it usually promptly closes.

Treatment.—Since bladder herniæ do not get well spontaneously and since the wearing of a truss neither retains nor cures them, but on the contrary causes pain and discomfort to the patient as well as tending to cause a cystitis in the part of the bladder pressed on (irritation and hyperemia), it is plain that the only treatment likely to prove beneficial is operation for the radical cure of the hernia.

When the bladder is intraperitoneal it may be pushed back into the abdomen and left so. If the herniated part be a diverticulum with a narrow orifice it would be better to remove it, or if it be inflamed removal is indicated, as it also is when the orifice is occluded. Strangulation would also be an indication for its removal.

In the extraperitoneal variety, when the bladder is properitoneal and otherwise normal, it should be repositioned in the abdomen, and the operation completed in the usual way. If paraperitoneal one opens the sac and frees it, except where it is attached to the bladder; this part is best left undisturbed, excised from the remainder of the sac and left adherent to the bladder and returned to the abdomen with it. The remainder of the sac one deals with as is his custom in ordinary operations for the radical cure. The reason for not trying to separate the sac wall from the bladder is that the bladder has been frequently cut or torn in the attempt. Of course in the pro- or paraperitoneal variety, excision of the herniated part may be necessary, but such is not as likely to be the case as it is in the intraperitoneal form.

Should the bladder be opened unintentionally and urine flood the field of operation, the surgeon at once takes the best steps to repair the damage. The operation wound is cleansed as quickly as possible, the cut edges of the bladder are sutured in two layers not including the vesical mucosa. The suture material ought not to be very readily absorbable. The wound is again cleansed by sponging with sterile saline or boric acid solution, the bladder is returned to the abdomen and the operation completed in the usual

way, a small drain being left for twenty-four hours, or as long as indicated.

If a bladder unknowingly wounded at operation be returned to the abdomen, the consequences are likely to be serious and death in such cases has resulted from hemorrhage, peritonitis, uremia and paravesical infiltration with cellulitis and abscess. General peritonitis and uremia have caused death where a herniated diverticulum was ligated and cut off; these consequences may not develop until a week or more after the operation. The proper operative steps must be taken to repair the damage just as soon as the diagnosis is made. Hemorrhage is controlled, the bladder wound closed and drainage established.

After suturing the bladder in these cases, there is some question as to the advisability of using the continuous catheter. Lucas-Championnière condemns its use. The only case of his six which developed a fistula was one in which he had used the continuous catheter. The German view seems to be opposed to this. Eggenberger cited nineteen cases with no deaths where it was used, against twenty cases with two deaths where it was not.

If the continuous catheter be used it should not be retained longer than forty-eight hours at most, and it must not be inserted farther than just within the bladder, lest it press against the sutured wound.

If it be not employed the patient should be catheterized every four hours to prevent even moderate distention. I think it is better to catheterize even though the patient be able to void his own urine. Urotropin or any of the urinary antiseptics may be prescribed for the first few days. After the fourth or fifth day the patient is allowed to void his own urine.

CASE 1.—Dr. Willard Bartlett. Policeman, aged 47 years. Right inguinal hernia of several years' duration. Much fat in canal. Bladder paraperitoneal, cut; sutured in two layers; catheter not employed; union per primam. Eight years since, no recurrence.

CASE 2.—Dr. Cale. Switchman, aged 50 years. Hernia right inguinal, several years' duration. Frequency of urination; a protrusion into posterior wall of sac apparently capable of holding four ounces. Diagnosis proved with catheter—bladder not cut—replaced and closure made. Prompt recovery. Three years since, no recurrence.

CASE 3.—Dr. Clopton. Male, aged 81 years. Gentleman of leisure. Right inguinal hernia of eight years' duration. Patient had of late been obliged to hold up his tumor before he could urinate. A truss had caused discomfort. Operation under cocaine anesthesia. Not much fat noticed. Bladder was retroperitoneal. It was not cut but was replaced and the hernia repaired in the usual manner. Recurrence in the second year.

CASE 4.—Dr. Elbrecht. Female, aged 40 years, unmarried. Right femoral hernia of three years' duration. No bladder symptoms. A truss had not caused any discomfort. Cecum, appendix, ileocecal junction and right angle of bladder were dragged into sac" (bladder paraperitoneal?). Bladder was not cut. Recovery and no recurrence.

CASE 5.—Dr. Jonas. Female, aged 30 years, housewife. Right femoral hernia of several years' duration. No bladder symptoms. Patient had not been able to wear a truss. Much fat found in the inguinal canal. Bladder was properitoneal and was wounded, but the damage promptly repaired. A catheter was used (continuously) for five days. Wound was not drained, the urine not having been allowed to contaminate it. Prompt recovery. Two and a half years and no recurrence.

CASE 6.—Dr. Henry Jacobson. Male, aged 48 years, baker. Left inguinal hernia of several years' duration. Patient had a dragging annoying pain after urinating and this radiated outward along the inguinal region. He had worn a truss, but it had caused pain and serious discomfort. There was much fat in the inguinal canal. Bladder was properitoneal, was not cut, was replaced and hernia repaired. Recovery uneventful and no recurrence.

CASE 7.—Dr. Kirchner. Case No. 1. Male, aged 67 years, cook. Had a previous operation for left inguinal hernia. At the second operation, a protrusion internal to and distinct from the inguinal ring was found. This proved (by catheter) to be bladder. It was returned to abdomen and the opening closed. Recovery uneventful. Six months since; no recurrence.

CASE 8.—Dr. Kirchner. Case No. 2. Male, aged 64 years, laborer. Operated for radical cure of right inguinal hernia. Bladder protruded 3 inches, properitoneal. Incised for sac. Clear fluid like that of hydrocele, but urine odored. Bladder sutured in two layers. Catheter not employed. Recovery prompt. A right femoral hernia was found in this case after the first had been repaired. Six months; no recurrence.

CASE 9.—Dr. A. H. Meisenbach. Female, aged 40 to 45 years, housewife. Right femoral hernia of two years' duration. No bladder symptoms. Had been an Alexander operation done on that side shortly before the appearance of the hernia. Not much fat present. Bladder paraperitoneal—wounded. Retention catheter was used two to three days. Recovery prompt. Eight years since, and has not heard of its recurrence.

CASE 10.—Dr. C. M. Nicholson. Female, aged 46 years, housewife. Left femoral hernia of six months' duration. Marked irritability of bladder with frequency worse during the day when truss was worn. Tumor disappeared on lying down. After sac was opened and a greater part of its contents reduced, the patient strained and a cyst was noticed in the posterior wall of sac. A hypodermic needle withdrew a fluid having the odor of urine. Bladder was not wounded, but replaced and hernia repaired. Prompt recovery and no recurrence.

CASE 11.—Dr. Reder. Male, aged 62 years. Right inguinal hernia of some years' duration. Had not been able to wear a truss, because of discomfort. Tumor size of hen's egg, not painful, easily reducible. Operation. Sac exposed easily, was glove finger-shaped, and contained omentum. Below and internal to sac was protrusion of reddish tissue. Traction on sac caused it to increase in size and release of tension caused its diminution. The vas lay between it and the lower part of the sac. In freeing sac at its upper part, this mass was incised and fluid escaped. A catheter proved that the bladder had been cut. Closure in two layers. Hernia repaired. Prompt recovery.

CASE 12.—The Author. Male, aged 77 years, commercial traveler, retired. Right inguinal hernia for three months. No symptoms. Strangulated for past two days. No urine for past 24 hours. Catheter withdrew 10 ounces of dark, smoky fluid which became

semi-solid on boiling. Patient's condition necessitated local anesthetic and 1-5 of 1 per cent. solution of novocaine in normal saline was used. Dark fluid in sac, no odor. Bowel had reduced itself except a small knuckle which adhered at the neck of sac. This was freed and also returned. A test-tube-shaped process extended down over the inner edge of the neck on sac, two and a half inches into the sac, and was adherent at its distal end to the outer wall of sac. This adhesion was broken. The process was empty and its walls glided on each other when rolled between the finger and the thumb. Traced inward, the process led downward behind pubes to the bladder. Where the process crossed the inner edge of the constricting ring, there was a gangrenous area on its under side. This was whipped over and the process returned, and the wound closed. Recovery prompt and no recurrence; nine months.

The above is a report of all the cases except two that have been found in St. Louis by the present surgeons. All the males (eight) had inguinal herniæ and all the females, femoral herniæ.

I wish to thank my colleagues for their kindness in furnishing me the data of their cases and for the permission to publish the same.

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THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

JANUARY, 1911.

EDITORIALS**THE MEDICAL SCHOOL OF THE STATE UNIVERSITY**

By invitation of the Board of Curators of the State University, representatives of the State Medical Association attended the December meeting of the board to discuss plans for the reestablishment of the clinical course of the medical school. The results of the meeting are not of a character to arouse our enthusiasm as medical practitioners or counselors whose opinions carry weight and influence. The board had no plan to offer and professed to be entirely open to suggestions as to the best method of accomplishing the object under discussion, but this did not appear to be a unanimous sentiment among its members; for on hearing the declarations of the medical men that the clinical course must be established in some large city in order to give the medical student the training required in the best medical colleges of to-day, there developed considerable objection to such a step and quite a decided opinion in favor of teaching the entire four years at Columbia. Naturally this attitude came as a shock to the members of the medical profession and caused a considerable dampening of the spirit of helpfulness with which they entered into the conference. The argument in favor of giving the clinical years at Columbia is not grounded on premises of sufficient force to carry conviction; it consisted chiefly of: the economic question, whether the board had or would receive enough money to establish the course in another city; and the legal conditions, whether the board had the authority to establish the course in another city.

Of the first question it must be said that the board acknowledges a prospective income of considerable magnitude from the inheritance tax which would be sufficient for the immediate needs of the school, coupled with advantageous arrangements for hospital connection, provided the board is willing to divert the money to the medical school. Of the legal phase there seems to be some doubt; one opinion being that the board has the right to establish the clinical course in another city while another legal light holds an opposite opinion. The members of the

board seem to entertain the belief that they have the right to establish the course elsewhere than at Columbia; a presumption that ought to be converted to reality by an opinion from the attorney general before further steps are taken.

The medical members at the conference allowed the board no ground to doubt their opinion of the course that ought to be pursued, and that was to establish the clinical years in one of the large cities. It were better to do nothing than to do less than this. The training of the medical student has to-day reached a point where nothing less than the most complete instruction can properly equip him to enter the practice of his profession, one of the most essential requirements of this preparatory training being practical work in hospitals and clinics; and to add the remark that the hope of establishing facilities at Columbia for adequate instruction in the practical work can never be realized is a superfluous multiplication of words in the discussion. It would be a retrogressive step for the university to give the clinical course in medicine at Columbia.

LEGISLATIVE MATTERS

The General Assembly will be asked to grant larger powers to the State Board of Health and to pass the expert testimony bill. Members of the auxiliary legislative committee and county society secretaries will be informed definitely just what bills will be introduced as soon as they have been prepared and the full text will be published in *THE JOURNAL* for the information of all members.

The meager authority of the State Board of Health prevents that important body from accomplishing any of the reforms which all persons who are cognizant of the dangers of our present lax methods fully realize are absolutely necessary for the efficient protection of the health of the people and the prevention of the spread of disease. The Indiana state law will probably be used as a model for preparing a bill to give our State Board of Health full control over local boards of health and to make its rulings mandatory instead of, as is now the case, being simply advisory.

The expert testimony bill provides a means of securing testimony from witnesses appointed by the court, and therefore of an impersonal and unprejudiced nature. This is far more satisfactory from the medical viewpoint than anything which has as yet been proposed, for it gives the court opportunity to appoint persons of known integrity and standing to give testimony on the

facts in a case without their being in any manner interested in the outcome; the fee for such expert service is fixed by the court. The bill does not deprive either party to a cause of the right to summon experts of their own choosing and at their own expense. The bill has the sanction and approval of the Missouri Bar Association and should be supported by the medical profession.

The optometrists will in all probability introduce a bill to license optometry. We reiterate our warning to members not to attach their signature to any paper or circular that may be sent to them asking them to approve or disapprove the practice of optometry as set forth by its advocates. Bills will be introduced in about nineteen legislatures in January and it is not likely that Missouri will be overlooked. We urge members of the Association to be prepared to oppose any movement looking to the licensing of these ignorant, impudent and presumptuous seekers of legal authority to tamper with the delicate and complicated visual organ of the body.

THE CITY BOARD OF HEALTH AND THE HOSPITALS AND SANITARIUMS

The recent disgraceful occurrence which the coroner brought to light during an inquest on a patient, who had committed suicide in one of the St. Louis hospitals, affords opportunity to call the attention of the St. Louis City Board of Health to its duties in connection with the licensing of hospitals as defined in ordinance No. 22,998.

The enactment of this ordinance was a great step in the right direction. The flagrant abuses which had been so conspicuous in many of the so-called hospitals, lying-in institutions, etc., have been to a considerable extent corrected by the sanitary inspection and supervision of the Board of Health. It is practically impossible, thanks to the vigilant supervision of the health authorities, to conduct the kind of establishments which forced the enactment of the ordinance above referred to, but the larger institutions, those who own and control magnificent buildings, are by no means above criticism and censure. It is assumed by those who entrust the unfortunate to an institution that the hospital is properly equipped to safeguard the health and limb and life of the patient.

It would be a humiliating picture to look on, were a roster exhibited containing the names of those mentally deranged who, for want of proper precautions, have been permitted to commit suicide in the various hospitals in St. Louis during the last ten years. To allow a patient mentally deranged to jump through an unguarded window of a room, the door of which has been locked

by the vigilant attendant, is as gross negligence as to permit a patient to hang himself to the transom over the door. In section 8 of the ordinance the Board of Health is authorized to make such rulings and regulations in respect to the management and conduct of any institution for the care and treatment of the patients or inmates thereof as said board may deem wise. The same ordinance also authorizes the board to inspect the institutions coming under the supervision of this ordinance. Hitherto this inspection has been limited to the inspection of the sanitary conditions and the presence of a resident physician but has not, so far as we know, concerned itself with the provisions which are made for the care of the inmates. Persons confined in institutions are necessarily dependent on those who hold themselves out as competent and able to make such provision and take such care of the patient as the relatives might be able to pay for. Institutions should be held to strict account, and the Board of Health should see to it that such rules and regulations are made as will prevent occurrences which are disgraceful to civilization and an outrage of the finer feelings of an intelligent community.

Institutions for the insane especially demand the supervision of the health department. Trained, intelligent attendants are of as much importance as a resident physician, and the mentally deranged should be under the constant surveillance of competent attendants night and day. In making investigation concerning the granting or renewing of a license, the Board of Health should make particular inquiry concerning these points. Careful investigation would show that hospitals now having licenses have no provision either for safeguarding the insane and delirious patients whom they admit, or for guarding them during the night except by a night-watchman whose business it may be to look after the fires, parade through the halls occasionally, and rest for a good part of the night.

There are some laudable exceptions, as is shown by the defense of one of the institutions made by an attending physician who refutes the official reprimand of "gross negligence" by showing that the institution has one attendant for every four patients and that, therefore, the suicide was an unavoidable accident.

BARNARD FREE SKIN AND CANCER HOSPITAL

The new building of the Barnard Free Skin and Cancer Hospital, St. Louis, was opened to patients last month. This philanthropy was begun five years ago on a very modest investment as an experiment for testing the need of an institution free in all its departments where special

facilities could be had for studying the cause of cancer and skin diseases and investigating methods of curing them, or alleviating their ravages and preventing their extension. From the very beginning of the work all doubt of its usefulness and importance vanished from the minds of the promoters, and now the institution is quartered in a new four-story, fireproof building, costing \$168,000, equipped with every modern appliance to prosecute the search for the cause and the remedy to cure these diseases. It is without doubt the best appointed and most modern hospital in this country for sufferers from cancer and the only one in any country with an elaborate department of research for the exclusive study of cancer.

One of the most distinctive features of the institution is the provision that no patients will be permitted to pay for the benefits conferred on them; therefore only that class of persons who have no means to pay for private medical assistance will be accepted at the institution. But poor persons afflicted with cancer and skin diseases will receive, free of all cost, the very best treatment known to modern medical science for the alleviation and cure of their maladies.

The medical profession and indeed all people of the state should view the establishment of this institution in its enlarged capacity for doing good with a sense of deep satisfaction, for out of the investigative labors of its promoters and workers on the staff there will emanate many inspiring contributions to science; and it is quite within reason to entertain the hope and expectation that this institution may be the scene of the discovery of the cause of cancer and the means of preventing its occurrence and destroying its malign effects.

LOS ANGELES MEETING OF THE A. M. A.

It is not too early for those who expect to attend the next meeting of the American Medical Association at Los Angeles in June to make arrangements for hotel and traveling accommodations.

If the members from Missouri desire to make the going trip in a body, the secretary will undertake to arrange for a special car and attend to other details of preparation for the trip. Before any steps can be taken, however, it is necessary for us to know how many members will go and whether they will be satisfied to take the route that the majority of the party decides on to Los Angeles. All members who desire to make the trip in this manner will please write to the secretary at once stating for how many persons they desire accommodations and what route they prefer, the southern, the central or the northern route. You must remember that

you can make the trip out on one route and return over another. The arrangements for a special car will terminate, of course, on arrival at Los Angeles. In another column we publish an announcement from the chairman of the committee on transportation at Chicago, giving some details of the different routes.

EDITORIAL NOTES

THE following articles have been accepted by the Council for New and Nonofficial Remedies:

Theophyllin Sodium Acetate (Merck & Company.)

Syrup Thiocol Roche (Hoffmann-LaRoche Chemical Works).

Protan & Opium Tablets No. 1 (H. K. Mulford Company).

Protan & Opium Tablets No. 2 (H. K. Mulford Company).

THE National Confederation of State Medical Examining and Licensing Boards will hold its twenty-first annual meeting in Chicago, Tuesday, Feb. 28, 1911, at the Congress Hotel. The subjects to be taken up at this meeting will be a consideration of the state control of medical colleges; a report by a special committee on clinical instruction; a report on a proposed materia medica list by a special committee; the report on a paper presented at the St. Louis meeting by Mr. Abraham Flexner of the Carnegie Foundation for the Advancement of Teaching; and some special papers on such subjects as the regulation of medical colleges, necessity for establishing a rational curriculum for the medical degree, and others, by men eminently qualified to prepare papers on such subjects.

These topics are all of practical and vital interest to medical colleges, medical examining boards, the profession at large and the public. The symposium will be composed of ten papers and be presented from the view-points of state, law, medical colleges, state medical examining and licensing boards and the medical profession. The chief object of the symposium is to determine, as far as possible, the feasibility of placing medical colleges under state control. The special committee on materia medica made a report at the St. Louis meeting of the confederation June 6, 1910, and it was continued and instructed to report again at the next annual meeting of the confederation in 1911. An earnest and cordial invitation to this meeting is extended to all members of state medical examining and licensing boards, teachers in medical schools, colleges and universities, delegates to the Association of American Medical Colleges, to

the Council on Medical Education of the A. M. A., and to all others interested in securing the best results in medical education.

OBITUARY—JOHN M. ALLEN, M.D.

Dr. John M. Allen died Nov. 1, 1910, of pneumonia, at the ripe age of 77 years. Dr. Allen was born in Clay County, Mo., July 20, 1833. He was educated at William Jewell College, Missouri, and was graduated in medicine in 1854 at the St. Louis Medical College.

It was the pleasure of the writer to know Dr. Allen intimately from 1874 to 1884. During these ten years we met him frequently by the bedside, in the office at Liberty and at the State Medical Association meetings.

As a gentleman Dr. Allen was a christian, refined and intelligent; as a physician he had no superior in Clay County, and but few equals—but one, indeed, that we remember; that was his collaborer, Dr. W. J. Yates of Kearney, Clay County. Dr. Allen was careful, painstaking, conscientious and a safe surgeon, always watchful and attentive to his patient in the hospital or the home. As a lecturer in the Kansas City University and at William Jewell College, he was plain and didactic, clear, concise and distinct. As a citizen he took great interest in his county and state, and was a member of the Missouri state legislature and would have represented his county in the lower house of congress had his patrons and friends consented to let him leave them in 1877, but a protest signed by over three-fourths of the citizens of his native county would not consent to his absence from among them.

During the Civil War, he was at the front with Generals Cockrill and Price as a surgeon in the Confederate Army. How many lives and limbs he saved will only be known in that great day when we all meet him again on the playground of the angels.

As a man, he was bold, fearless, cautious and diffident, and yet as brave as a lion, with the tender heart and sympathy of a woman; a christian, proud of his church and of his country and state; cautious, prudent and yet a man of strong mind in a vigorous body, who had the courage of his convictions, and was not afraid to express them anywhere, everywhere. As an operator he was inclined to observe the rule "be sure you are right in your diagnosis, and then go ahead with caution." The poor always found in Dr. Allen a strong, stanch, faithful friend, never denying service, but freely he gave of his medicine and service to help the poor and build up his community and college. He was a faithful and consistent member of the Association and supported every movement advocated by the profession for the improvement of the health of the people, and in 1870 was elected president of the State Medical Association.

C. W. WATTS, M.D.

MISSOURI STATE BOARD OF HEALTH NEWS

MEETING OF SEPT. 20, 21, 22, 1910

At this meeting examinations were conducted for license to practice medicine and surgery, fifty-eight applicants appearing for examination. Examination was also held for license to practice midwifery, nine applicants taking the examination.

The license of Dr. J. M. Moses of St. Louis was revoked for a period of two years. The charges against Dr. Moses were unprofessional and dishonorable conduct. It was shown that he had solicited practice by means of an agent, and further that he had contracted to treat individuals and had not fulfilled his contract as he had not visited and prescribed for those with whom he had entered into an agreement.

MEETING OF OCTOBER 10

At this meeting, held in Jefferson City, the grading of the papers of those who took the examination on September 20, 21 and 22 was passed on. Fifty-eight applicants were examined; of these thirty-eight passed the examination and twenty failed. (The full table was published in the December issue of THE JOURNAL.)

Reciprocity was entered into between the Missouri and Kansas boards, it being agreed that all who were licensed in either state on diploma prior to March, 1901, are eligible to a reciprocal license; it being further agreed that all those who have been licensed in either state on examination since March, 1901, are eligible to a reciprocal license, provided that applicants shall not have failed in an examination before either board. It was further agreed that the secretaries of the Missouri and Kansas boards shall, after each examination, each supply the other with a list of the names and addresses of those who failed in each and every examination.

The license of Dr. W. E. Williams of Higbee was restored. Dr. Williams' license was revoked Dec. 20, 1905, on the charge of prescribing alcoholics for other than medicinal purposes.

It was resolved that the Ensworth Medical College of St. Joseph be placed on the list of discredited medical schools, this action being based on the fact that an examination of the college showed among the inadequate facilities for teaching that in this school the anatomical laboratory is found not to contain a storeroom for preserving cadavers; that there was no apparatus for injecting cadavers; and an insufficient supply of instruments for post-mortem technic. There was not found in the school sufficient preserved anatomical specimens for demonstration and study. There was found but one mounted skeleton. Anatomical models were not found.

So far as the library of this school is concerned, it was shown that there was none of any value. The library contained probably fifty or

seventy-five old volumes of medical works, most of them practically worthless and but very few recent publications.

In this school the bacteriologic and pathologic laboratories were reported to exist as one. The chemical laboratory was found to have a very poor and unsatisfactory equipment. So far as the clinical records of the school are concerned, it was found that there was no record of the number of obstetrical cases each senior student had attended during the college term of 1909 and 1910.

The following report of the committee on college inspection, which committee is made up of certain members of the state board of health, was adopted:

"Your committee on college inspection beg leave to submit the following report concerning the Hahnemann Medical College of Kansas City. This inspection was made Oct. 1, 1910, and we request that the Missouri State Board of Health henceforth shall not recognize this school as an approved college until its deficiencies are thoroughly corrected and adequate instruction given to students.

"Among the inadequate facilities for teaching it is noted that there exists no proper anatomical laboratory; no storeroom for preserving cadavers nor any apparatus for injecting them; also not sufficient instruments for post-mortem technique and no proper anatomical models for demonstration or teaching.

"The building is inadequate in its arrangement and equipment. There is no proper library for reference and study. The bacteriologic and pathologic laboratories exist in one, and the laboratory equipment is such that there is no evidence that the students receive proper instructions in these branches.

"The chemical laboratory also is cramped and improper in its arrangement, and there are no hoods or ventilating shafts properly arranged for the protection of the students.

"There are no facilities providing for research work and experimental study and demonstrations of physiologic processes on animals.

"Among the other deficiencies of this school may be mentioned the failure to keep proper obstetrical records of the school or to produce evidence that each student has attended the requisite number of obstetrical cases.

"The above mentioned inadequacies of this school together with the method of instruction, we find sufficient for recommending that the school be discredited. We recommend that the management of this institution be advised that unless these and other deficiencies be corrected at once and the minimum requirements of this board be complied with, the school be discredited

and their students be not admitted to the examinations of the Missouri State Board of Health."

FRANK B. HILLER, M.D.,
Secretary State Board of Health.

NEWS NOTES

DR. WILLIAM E. LEIGHTON and Miss Virginia Evans, both of St. Louis, were married in that city November 26.

DRS. S. G. BURNETT and J. Elliott Royer have moved their offices to the new Gloyd Building, 91 Walnut Street, Kansas City.

DR. R. D. CARMAN, former roentgenologist at the City Hospital in St. Louis, has resigned; Dr. Fred B. Hall is conducting the work temporarily.

DR. E. LEE MYER has resigned from the position of senior assistant at the St. Louis City Hospital and accepted the position of assistant to Dr. M. A. Goldstein.

DR. WALTER C. KIRCHNER, formerly superintendent of the City Hospital of St. Louis, has returned from Europe and has opened offices in the Metropolitan Building, St. Louis.

THE annual convention of the surgeons of the Chicago, Rock Island and Pacific railroad was held at Kansas City December 7. Dr. S. C. Plummer, chief surgeon, presiding.

DR. G. A. DELAMETER delivered a lecture to the pupils of the high school at Rich Hill on December 9 on the subject of "Germs in Disease." This is the first of a series of lectures to be delivered to high school pupils for their instruction in health protection.

A CASE of leprosy was discovered in the Kansas City General Hospital recently and was made the subject of study by the physicians there and at a meeting of the Jackson County Medical Society. It is said to be the first case of leprosy that has been seen in Kansas City.

THE Missouri and North Arkansas Railway surgeons held a two day session at Helena, Ark., December 13 and 14. Dr. S. A. Russell of Fairview, Mo., read a paper on "The Medical Treat-

ment of Surgical Cases": Dr. T. D. S. McCall of Neosho, Mo., read a paper on "The Care of the Railroad Man's Eyes."

VACCINATION in the St. Louis public schools will be resumed about January 1. The committee appointed to investigate the condition of the pupils in reference to vaccination has completed its work and will report to the board of education. The committee consisted of Drs. George Dock, D. L. Harris and James Stewart.

THE State Board of Health revoked the licenses of six physicians and two midwives at its meeting at Jefferson City, December 12, for violation of the medical practice act, consisting chiefly of producing or offering to produce abortion. The attorneys representing the physicians attacked the law as being unconstitutional, notwithstanding that the constitutionality of the act has been upheld by the supreme court. A full report of the meeting will be published in our next issue.

A NEGRO conference on tuberculosis was held in St. Louis December 12 by the negro branch of the St. Louis Antituberculosis Society and the Municipal Commission on Tuberculosis; the negro branch organization was formed about a year ago by a number of negro teachers, physicians and ministers. Such an association ought to have a wide influence in teaching negroes how to live hygienically, to protect themselves when afflicted and prevent them from becoming a menace to others.

THE Missouri Commission on Tuberculosis has sent postcards to all physicians in Missouri asking for information concerning the number of tuberculosis cases under their care and the number of such patients who have removed from the state. Physicians are requested to send this information to Dr. E. W. Schaffler, vice-chairman of the committee, Deardorff Building, Kansas City. From the information thus gained the commission will prepare a report to the governor showing the prevalence of the disease in Missouri for the purpose of formulating a plan for the eradication of tuberculosis in this state through health legislation.

THE Jefferson Medical College Alumni Society, of St. Louis will hold its Annual Banquet Saturday, January 28. Dr. Hobart A. Hare of Philadelphia will be the principal speaker and will also speak at 8:30 of the same evening to the St. Louis Medical Society by invitation of the Surgical Section. His subject will be "The Bearing

of Old and New Facts Upon Our Conceptions of Cardio-Vascular Disease."

The Pennsylvania Society of St. Louis has postponed its annual dinner to the evening of January 27 so that it may be honored with Dr. Hare's presence.

THE St. Louis Obstetric Dispensary furnished medical attention to 258 cases during the period from Nov. 1, 1909, to Oct. 31, 1910. There has been a large increase in the number of out-door cases at this dispensary on account of the migration of the class of patients requiring dispensary assistance out of the district in which the dispensary building is at present located, and a call has been made for funds to erect and equip a new building in the section where most of the work is now done.

OPPORTUNITY FOR RESEARCH WORK.—With the opening of the new Barnard Free Skin and Cancer Hospital, St. Louis, December 20, the pathological department of that institution will undergo many changes. Dr. Leo Loeb will assume charge and direct the research work of the institution. While he and his assistant, Dr. Felisher, will devote their time mainly to animal experimentation, it is desired to stimulate research work along other lines as well. Many problems in clinical pathology (examination of urine, blood, feces) are of great interest and importance in the study of the etiology and treatment of cancer. The staff therefore has decided to give the opportunity to two young men of good standing to work out some special problem of clinical pathology relating to cancer, under the guidance of Dr. Loeb. Physicians who desire their names considered for these positions in the research laboratory should apply before January 15 to Dr. Fred J. Taussig, secretary of the medical board, 731 Metropolitan Building, St. Louis. The amount of time necessary to do justice to such research work would be approximately two hours a day; anyone who cannot devote that amount of time to the work will not be considered for the position.

HOW TO GO TO LOS ANGELES.—The question of how to go to Los Angeles next June to the session of the American Medical Association is one which is interesting many members of the Association at this time. As is well known, there are three prominent routes to the far West: the southern route through Arizona, New Mexico, etc., taking in the Grand Canon; the central route through Colorado, the beautiful mountain scenery of the Rio Grande, etc., and the northern route, taking in Yellowstone Park and the magnificent Shasta trip along the mountain range of the Pacific slope.

The Committee on Transportation is now making arrangements for special trains for the use of members and their families who expect to attend the session. The committee is in touch with all the principal railroads and can make arrangements for special trains or cars as may be necessary from almost any point in the United States.

The chairman of the committee earnestly requests all those who expect to attend the session, particularly those living in the middle and eastern states, to communicate with him as soon as possible as to the route, southern, central, or northern, they desire to take west from Chicago. In this way, ample and satisfactory accommodations can be arranged for all. If any group of members from any city or territory will express their wishes to the committee, every effort will be made to secure special cars or train as may be necessary for their accommodation over the best route possible.

Applications for reservations on the special trains or on regular trains from Chicago west may now be filed with the Chairman of the Committee on Transportation, who will see that they are all properly taken care of.

M. L. HARRIS, Chairman,
Committee on Transportation.

100 State Street, Chicago.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF CITY HOSPITAL ALUMNI (ST. LOUIS)

The annual meeting of the Medical Society of City Hospital Alumni was held at Medical Library building, Thursday, Dec. 1, 1910, President Dr. Hinchey presiding.

Dr. M. A. Bliss, by invitation, read a paper, "A Plea for the Merit System in the Eleemosynary Institutions of the State." The subject was discussed by Drs. C. W. Thierry, W. B. Dorsett, L. Sale, H. Unterburg and closed by Dr. Bliss.

On motion of Dr. Thierry, seconded by Dr. Sale, it was unanimously voted that the society endorse the merit system as proposed by Dr. Bliss.

Dr. P. S. Moskop read a "Report of a Case of Tuberculous Pericarditis, with Post Mortem Findings."

Dr. Guy Qualls and Dr. Roy Bellaire were proposed for membership by Dr. Hewitt.

The Executive Committee presented a favorable report on the Amendment to Article III, Paragraph 2, of the Constitution. After discussion it was unanimously adopted; the article will now read:

"Associate membership may be obtained by any member of the visiting staff of the City or Female Hospital who has served in that capacity for at least six months, but such membership shall, in every instance, cease with the termination of service on said visiting staff."

The Executive Committee also reported favorably on the application of Dr. E. Lee Myers for membership. On motion the secretary was instructed to cast the ballot for Dr. Myers.

Annual reports of standing committees were made by Dr. Oatman, chairman of the Executive Committee; Dr. F. C. Simon, chairman of Committee on Scientific Communications; Dr. A. E. Horwitz, chairman of Committee on Publications, who announced that the agreement with the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION had been signed and was in full effect.

Dr. Clarence Loeb reported for the Entertainment Committee that the place for the Annual Dinner had not been definitely determined.

Dr. Fischel reported that there was no report from the Committee on Public Health and Legislation.

The annual report of the secretary was read.

The secretary also presented the bids for the publication of the list of members, constitution and by-laws, etc. On motion of Dr. E. Lee Dorsett these bids were referred to Publication Committee with power to act.

Treasurer's report was read and names of members dropped for non-payment of dues was ordered.

On motion of Dr. Falk the general rules governing the banquet were suspended and instead the names of visitors and guests are to be referred to the chairman of the Entertainment Committee.

On motion the society was permitted to invite as guests, in accordance with the usual custom, those who had served on its programs during the year.

Dr. Kirchner reported the following nominations by the Advisory Council of officers for 1911:

For president, Dr. F. C. Simon; for vice-president, Dr. W. H. Luedde and Dr. P. J. Farmer; for secretary, Dr. Henry Young and Dr. Marsh Pitzman; for treasurer, Dr. Percy Swahlen and Dr. Walter Fischel.

The election resulted as follows:

President, Dr. W. H. Luedde; vice-president, Dr. L. J. Oatman; secretary, Dr. F. C. Simon; treasurer, Dr. Percy Swahlen.

Attendance, members 35, visitors 5.

W. H. LUEDDE, M.D., Sec'y.

ADAIR COUNTY MEDICAL SOCIETY

The Adair County Medical Society met in Brashear at the office of Dr. James Hanks on Thursday evening, December 1st, for its regular monthly meeting, with the following members present: Drs. Hanks, Callison, Gashwiler, Martin, Quinn and Parrish.

Dr. J. S. Gashwiler presented the case of a girl 16 years of age. At the age of twelve years her condition was pronounced tuberculous and later treatment, covering a period of four years in which open air, eggs, milk and creosote derivatives played the principal part, she looks the picture of health and weighs 165 pounds. With the exception of sibilant râles in the upper portion of the left lung, she appears in normal condition. The case was very interesting and brought forth a lively discussion. It was the consensus of opinion that it was an arrested case of tuberculosis pulmonalis. It was advised that the treatment be continued indefinitely regardless of physical signs. Dr. Gashwiler is to be commended in the manner of treatment and deserves great credit for the results obtained.

Dr. James Hanks read a very instructive and interesting paper on "Hydro-Therapy in General Practice." The subject was well handled. Dr. Hanks is an "old timer" along the hydro-therapy line and obtains excellent results by his intelligent application of these measures. The paper brought forth a comprehensive discussion; the general opinion was, to use water externally, internally and all the time in a scientific manner. In view of the fact that the paper was a very meritorious one, a motion was made and seconded that the secretary send it to the editor of the JOURNAL for publication, which was carried unanimously.

No further business coming before the society, it adjourned to meet in the office of Dr. T. R. Butler, Kirksville, on the first Thursday in January, 1911.

BERT PARRISH, M.D., Secretary.

BARTON COUNTY MEDICAL SOCIETY

The Barton County Medical Society met in Lamar, December 8, Dr. J. L. McComb of Lamar in the chair.

The election of officers for the coming year being in order, the following were elected: Dr. J. F. Cromley, Lamar, president; Dr. C. F. Brown, Lamar, vice-president; Dr. A. B. Stone, Lamar, secretary-treasurer, Dr. J. L. McComb, Lamar, censor for three years.

A. B. STONE, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society held its regular monthly meeting at Cape Girardeau with the following members present: Drs. Cunningham, Hays, Howard, Moore, Schulz, Tarlton, Wichterich, Wilson and Yount.

This being the meeting for the election of officers, the following were elected: Dr. B. W. Hays, president; Dr. Edw. Moore, vice-president; Dr. E. H. G. Wilson, secretary; Dr. W. E. Yount, treasurer; Dr. G. B. Schulz, delegate; Dr. Howard censor for 3 years, Dr. Hope censor for two years, Dr. Vinyard, censor for one year.

The application of Dr. John I. Ellis was presented and acted on favorably by the society.

After discussing business affairs, the society adjourned.

E. H. G. WILSON, M.D., Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY

The Carter-Shannon County Medical Society met in regular session, President Dr. W. Fulton in the chair, and the following members were present: Drs. R. I. Davis, John N. Washington, T. W. Cotton, J. A. Chilton. Druggist J. T. Loyd and Professor Walter Webb were also present and read papers. This was a public meeting and quite a good number of persons were in attendance, all of whom showed deep interest in the meeting.

The following program was rendered:

"The Relation of the Community to the Tuberculous, and *vice versa*," by Dr. J. N. Washington.

The object of this paper was to show that the cleanly tuberculous patient is often unnecessarily shunned, and even almost ostracised by the public because of groundless fear by the people of contracting the disease, which has a depressing influence upon him. In other words, the doctor defends the tuberculous patient who observes the rules of sanitation, and maintains that it is safe and right for him to associate with his fellowman as other people do.

In the discussion that followed, Dr. T. W. Cotton differed somewhat with Dr. Washington in his views and rather questioned that tuberculous patients, as a rule, if indeed ever, are sufficiently clean and sanitary in their habits to be perfectly safe as associates for society in a general way.

"The Medicine Pedler and Other Evils," was an excellent paper by Druggist J. T. Loyd in which he condemned the methods of the itinerant medicine vender; he said these people do more harm by the dope they sell than it is possible for them to do good and, further, proposed that such people should be forced by legislative acts to label their stuff so that the contents

could be known and subject to proof that it will do what they claim, or quit business. The paper was discussed by both the doctors and laymen present, and especially by Representative Liles of Shannon County, who said he stood ready to assist in securing any legislation the doctors and druggists might suggest that would help to purify and upbuild the two professions and protect the public from fraud along these lines.

Professor Walter Webb of the Eminence school, read a paper on "The Schools and the Public Health," which was well received by the doctors and others present, and freely discussed. One phase of the Professor's paper was a plea for a Department of Public Health at Washington.

"Some Facts about Measles" was the title of a paper read by Dr. J. A. Chilton in which an effort was made to acquaint the people present with the importance of this disease, and how it should be managed in a general way, as to nursing, etc., and to explain some of the dangers of neglected cases, together with a few miscellaneous facts as to its contagiousness, periods of incubation, eruption, etc. The usual discussion followed.

As above stated this meeting was held in the Court House at Eminence, and a very satisfactory audience of the good people of that town was present and showed quite an interest in the meeting. Withal, the meeting was a decided success from every standpoint.

DR. J. A. CHILTON, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society met at Harrisonville, December 1. The following members were present: Drs. Crawford, Elder, Fair, Overholser, Triplett and Wright. The following program was carried out, all the papers being interesting and well prepared. All the members present took part in the various discussions:

"Report of a Case of Ruptured Spleen," by Dr. S. W. Fair.

"Present Status of Acute Anterior Poliomyelitis," by Dr. H. S. Crawford.

"A Brief Biographical Sketch of the Past Presidents of the Cass County Medical Society," by Dr. J. S. Triplett.

The election of officers resulted as follows: Dr. Frank B. Ellis, president; Dr. S. W. Fair, first vice-president; Dr. W. K. Wright, second vice-president; Dr. H. S. Crawford, secretary-treasurer; member of the Board of Censors, Dr. H. Jerard.

Dr. Robert S. Bennett, Drexel, made application for membership, and was duly elected.

The hospital committee made a report, which was adopted and the committee discharged. The committee recommended that some organization outside the medical society take up the proposition and pledged the assistance of the members of the County Society in every possible way.

H. S. CRAWFORD, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

The Greene County Medical Society, at its regular meeting December 9, elected the following officers for the ensuing year: Dr. B. F. Fortner, president; Dr. E. F. James, vice-president; Dr. Thomas O. Klingner, secretary; Dr. D. B. Farnsworth, treasurer; Dr. G. W. Barnes, censor, and Dr. G. B. Lemmon, delegate.

Dr. G. B. Dalgleish was elected a member on transfer from Bates County Medical Society.

The president appointed a committee, composed of Drs. G. B. Lemmon, F. B. Fuson and W. M. Smith, to make arrangements for the sale, during the holidays,

of Red Cross Seals, the proceeds to be turned over to the Anti-Tuberculosis Commission.

THOMAS O. KLINGNER, M.D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY

MEETING OF NOVEMBER 22

The papers on the program for this meeting were as follows: "Ehrlich-Hata (606) Treatment of Syphilis," by Dr. L. W. McBride; "Optic Atrophy Following Administration of Organic Arsenic," by Dr. A. W. McAlester, Jr.

The announcement that reports would be made on the results of the use of this new remedy for syphilis attracted a large gathering, in fact it was an overflow meeting. About 150 members came to hear Dr. McBride and Dr. McAlester report their experience with the new treatment of syphilis. Many discussed the papers and most of the speakers had either used or seen used the much lauded specific, "606"; to say that most of them were enthusiastic over it in the extreme would be putting it mildly. Of course, there were cases reported in which untoward symptoms had followed the administration of the drug, but the very great majority of cases had been marked by such rapid improvement or apparent cure following a single injection that the majority believed a specific for syphilis had at last been found, and that "606" has come to stay.

MEETING OF NOVEMBER 29

This evening was devoted to presentation of patients, specimens, etc. As usual with the meetings devoted to this work, the attendance was well up to the record of previous meetings, and the discussions on the cases and specimens presented were instructive and enlightening.

MEETING OF DECEMBER 6

This was the annual meeting for election of officers. Previous to the balloting for officers, the members discussed the subject of a home for the society. A movement has been on foot for some time, and at this meeting a number of the members made voluntary contributions to the fund during this discussion, the total subscribed being \$375. It is the earnest hope of the officers and of all members who are interested in securing a permanent home for the society that those who have not as yet contributed to the building fund will send to the secretary whatever sum they may feel inclined to give, and do so at an early date.

The officers for 1911 are: Dr. J. D. Griffith, president; Dr. J. Q. Chambers, vice-president; Dr. E. L. Stewart, secretary; Dr. W. F. Kuhn, treasurer; delegates to State meeting, Drs. W. J. Frick, J. Q. Chambers, A. J. Welch, E. G. Blair, E. H. Thrailkill, J. G. Lapp and E. F. Robinson; junior member to Board of censors, Dr. Fred T. Van Eman.

MEETING OF DECEMBER 13

The program for this meeting consisted of the following papers: "Emergency Cases in Eye, Ear, Nose and Throat Work, with Suggestions for Their Care by General Practitioners," by Dr. J. S. Wever.

"Ovarian Disease," by Dr. Wm. A. Shelton.

"A Modification of the Usual Technique in the Delivery of the First Arm in Podalic Version or in Breech Presentation," by Dr. Don Carlos Guffey.

E. L. STEWART, M.D., Secretary.

MACON COUNTY MEDICAL SOCIETY

The Macon County Medical Society met in the office of the secretary at Macon, December 13, the president, Dr. C. E. Salyer in the chair.

The secretary reported that arrangements had been made with the secretary of the State Anatomical Board for anatomical material.

Dr. Smith presented a paper on anterior poliomyelitis, with pictures showing the lesion and charts and diagrams illustrating the differential diagnosis from other cord lesions. The paper exhibited so much careful work and real merit that the society, by unanimous resolution, requested the doctor to present his paper at the State meeting in May. The society decided to select a program two months in advance of each meeting, to give each orator ample time to prepare his manuscript. Arrangements have also been made with the Macon Anatomical Society for demonstrations at the meetings.

The election of officers was then had after which the society adjourned and the members conveyed in automobiles to the residence of Dr. C. W. Reagan, where they enjoyed a splendid dinner as the guests of Dr. and Mrs. Reagan.

Officers for 1911: Dr. W. P. Pipkin, Excello, president; Dr. C. C. Lyda, Atlanta, vice-president; Dr. A. B. Miller, Macon, secretary-treasurer and reporter; Dr. W. E. Bradley, delegate to State Association; Dr. F. W. Allee, Kaseyville, alternate; Dr. G. F. Brewington, Bevier, member board of censors.

Our society is doing the best work and presenting the highest class of papers in its history.

A. B. MILLER, M.D., reporter.

MONITEAU COUNTY MEDICAL SOCIETY

The Moniteau County Medical Society met in regular quarterly session at Tipton, December 8, at 2:00 p. m. The president, Dr. J. H. Lang being absent, Dr. H. S. Marsh presided, and the following members were present: Drs. H. R. Popejoy, J. B. Stewart, J. W. Marsh, H. S. Marsh, and H. C. Freudenberger. In addition to these members the following visiting physicians were present and took active part in the discussions: Drs. Frank DeVilbiss, P. E. Williams, C. E. Fry and Reynolds.

Those who were on the scientific program to read papers were absent, and in lieu of these papers several interesting clinical cases were presented and thoroughly discussed. One was a case of apparent ectopic pregnancy resulting in tubal rupture; the other a case of cardiac hypertrophy accompanied with aortic dilatation.

Dr. P. E. Williams, Dr. Frank DeVilbiss and Dr. C. E. Fry were elected members of the society.

The following officers were elected for the year 1911: H. S. Marsh, president; H. R. Popejoy, vice-president; H. C. Freudenberger secretary-treasurer and delegate to the State meeting.

The society then adjourned to meet again at 7:30 p. m. of the same date at the First Baptist Church of Tipton where an open session was held, the papers being devoted to the discussion of hygiene and sanitation. The program for the occasion was as follows:

"Sanitary Science and Public Health," by Dr. Harry S. Marsh.

"School Hygiene and Sanitation," by Prof. Ladman.

"Tuberculosis, Its Cause and Prevention," by Dr. H. C. Freudenberger.

"Life and Death; In Memory of the Deceased Members of Moniteau County Medical Society," by Dr. J. W. Marsh.

"Past Achievements and Prospective Attainments of Preventive Medicine," by Dr. Frank DeVilbiss.

A small but appreciative audience was present and the society feels much encouraged at the results of this their first efforts at an open meeting program.

H. C. FREUDENBERGER, M.D., Secretary.

MONTGOMERY COUNTY MEDICAL SOCIETY

The Montgomery County Medical Society met in Montgomery City on Tuesday, December 13. This being the date for the regular annual meeting, the following were elected officers for 1911: Dr. G. E. Muns, president; Dr. W. M. Wheeler, secretary and treasurer. The following are members in good standing with dues paid for 1911: Drs. D. O. Hudson, G. E. Muns and David Nowlin, of Montgomery City, and Dr. W. M. Wheeler of High Hill.

W. M. WHEELER, M.D., Secretary.

NODAWAY COUNTY MEDICAL SOCIETY

The Nodaway County Medical Society met in regular session December 13, and elected the following officers for 1911: Dr. J. H. Todd, Maryville, president; Dr. C. G. Dean, Burlington Junction, vice-president; Dr. Chas. T. Bell, Maryville, secretary; Dr. M. M. Pollard, Barnard, treasurer; Dr. A. T. Fisher, Maryville, delegate.

A. T. FISHER, M.D., Secretary.

PETTIS COUNTY MEDICAL SOCIETY

Pettis County Medical Society held a meeting at Sedalia on November 22.

Dr. Carl A. Hoberecht, senior physician at the City Hospital in St. Louis, addressed the meeting and Dr. Howland of the M. K. & T. hospital at Sedalia presented a number of patients.

After listening to Dr. Hoberecht's paper and examining the patients presented by Dr. Howland, the society took up the lesson for the evening from the post-graduate course, Drs. Long, Heatton, Monroe and Kelly being the speakers.

PLATTE COUNTY MEDICAL SOCIETY

The Platte County Medical Society convened at Platte City in the office of Dr. Spense Redman, December 7th.

Dr. O. J. Cunningham, of Kansas City, read an interesting paper entitled "General Anesthesia," which was much appreciated and fully discussed.

The election of officers for the year 1911 resulted in the election of the following: Dr. E. R. Hull, Camden Point, president; J. W. Schultz, Weston, vice-president; A. S. J. Smith, Dearborn, secretary; Frank M. Shafer, Edgerton, treasurer.

The year of 1910 closes with unity, peace and strength pervading the entire membership.

The report of the secretary for the year of 1910 was read as follows: Number of meetings, eleven; average attendance of members at each meeting, eight; total eighty-eight; average attendance of guests at each meeting, four; total forty-four; clinical cases presented, four; papers read, lectures, etc., average at each meeting, two; total during the year, twenty-four; members received, three. Dues of all members paid up in full.

The annual banquet was held at the Central Hotel and proved an enjoyable occasion for all.

The secretary tenders his humble thanks to the members of the society for the encouragement and strength they have given him from which came our success.

E. R. HULL, M.D., Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY

The Ste. Genevieve County Medical Society held its annual meeting Dec. 14, 1910, President Hinch in the chair. After disposing of routine business the society

proceeded to the election of officers. It was moved, seconded and carried that the secretary cast the vote of the members for election of officers. Result of election: Dr. G. M. Rutledge, president; Dr. J. A. Wilkins, vice-president; Dr. R. W. Lanning, secretary-treasurer; Dr. F. W. Hinch, delegate.

The president made appointments as follows: for board of censors, Dr. H. J. Morgansteen, Dr. W. W. Jarvis and Dr. R. W. Lanning; committee on public health and legislation, Drs. F. E. Hinch, J. A. Wilkins and R. W. Lanning.

The treasurer's report for the year 1910 was read, showing a balance on hand of \$5.08. No further business appearing, the society adjourned until second Wednesday in January, 1911.

R. W. LANNING, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

The annual meeting of the society was held on Wednesday evening, December 7, the president, C. R. Woodson, in the chair. Roll-call of officers showed the following absent: Drs. Bell and McCoy.

The amendment to the constitution advancing the annual dues from \$4 to \$5 per year was adopted.

The amendment to the by-laws, Sec. 4, Chap. 3, defining the duties and compensation of the secretary, was adopted as read.

The secretary, representing the convention committee, brought up the subject of contributing to the General Convention fund and after discussion the motion was made to allow the secretary ten minutes' time in which to interview the members regarding the proposition. The motion was lost.

The banquet committee on the Doyle Memorial made a report, stating that after paying all expenses of the banquet and loving cup they had a balance on hand of \$2 which was turned over to the treasury of the society. After a vote of thanks to the Apollinaris Company and to the Goetz Dispensing Company, the report was adopted.

Next order of business was the election of officers and the chair appointed as tellers, Drs. Gleaves, Bansbach, Chas. Geiger, McGill and Byrne. The result of the ballot was as follows:

Dr. S. F. Kessler, president; Dr. J. I. Byrne, first vice-president; Dr. J. F. Owens, second vice-president; Dr. Herbert Lee, secretary; Dr. J. M. Bell, treasurer (reelected); Dr. C. H. Wallace, censor; Dr. C. O. Jefferies, Savannah, delegate to State Society; Dr. C. R. Woodson, alternate.

After announcing the meeting of the Missouri Valley arrangement committee and the sale of the Red Cross seals, the society adjourned.

CHAS. WOOD FASSETT, M.D., Secretary.

ST. LOUIS MEDICAL SOCIETY

MEETING OF THE SURGICAL SECTION, NOVEMBER 26

Dr. Treston R. Ayars presented a case of Charcot's disease. Discussion on the case was opened by Dr. Sidney I. Schwab.

Dr. Ernst Jonas read an interesting paper on "Plastic Operation for Formation of Artificial Anus," with presentation of patient. This paper provoked considerable discussion.

The paper by Dr. N. W. Sharpe, "A Case of Goiter with Intrathoracic Pressure Symptoms," was postponed until the next meeting.

MEETING OF NOVEMBER 30

This meeting was conducted under the auspices of the Oto-Laryngological Section. The only paper of the

evening was by Dr. Wm. L. Ballenger of Chicago, who was the invited guest of the section. He read an interesting paper on, "Conditions in the Labyrinth Requiring Surgical Interference."

MEETING OF DECEMBER 3

This was the regular meeting of the general society. Dr. Willard Bartlett delivered a most entertaining account of the trip abroad of members of the American Society of Clinical Surgery under the title, "The Invasion of Great Britain by the American Society of Clinical Surgery." He illustrated his remarks by stereopticon views of some of Great Britain's noted hospitals and eminent surgeons.

The members were given an opportunity of learning the value of Ehrlich's most recent discovery, the celebrated remedy "dioxydiamidoarsenobenzol" (606) in a paper prepared by Drs. M. F. Engman, W. H. Mook and J. W. Marchildon, when these gentlemen reported the progress made by twenty cases of syphilis treated with "606" during the past two months. The large auditorium of the society was filled to overflowing. The report will be published in full in the JOURNAL.

The result of the recent election of officers was announced as follows:

Robert E. Schlueter, president; F. C. E. Kuhlmann, secretary. Members of the Council, Henry Schwarz, Joseph Grindon, Carroll Smith, J. McH. Dean. Delegates to State Association, J. H. Amerland, W. W. Graves, Geo. Homan, C. E. Burford, V. P. Blair, R. H. Fuhrman, R. Funkhouser, A. E. Koetter, C. M. Nicholson.

MEETING OF DECEMBER 7

This meeting was held under the auspices of the Ophthalmic Section. Dr. John Green, Jr., presented a case very recently coming under his observation, of embolism of the central artery of the retina.

Drs. Sidney I. Schwab and Meyer Wiener presented a joint paper on "Functional Abducens Paralysis, with a Consideration of Hysterical Ocular Dissociation Phenomena."

Dr. A. H. Hamel, by invitation, addressed the meeting on the subject of "Refraction by the Family Physician, From the Standpoint of the General Practitioner."

Clinical reports and microscopic specimens were demonstrated by Drs. Meyer Wiener and F. P. Parker.

Dr. Hamel suggested to the section that its members should take active steps to prevent the adoption of any law at the coming meeting of the General Assembly to legalizing the practice of optometry in this state. He suggested as a means of counteracting the evil practices of the traveling spectacle vender the systematic instruction in refraction of selected practitioners in each county. Physicians thus instructed would readily discern serious conditions of eyes and promptly refer those cases to the ophthalmologist. By placing in the hands of a physician of recognized standing in a community the work of fitting glasses for simple astigmatic conditions, inhabitants would quickly learn to depend upon him and shun the traveling spectacle vender and the ignorant optometrist.

The Section appointed a committee to prepare a plan of action to carry out the suggestions offered by Dr. Hamel.

MEETING OF DECEMBER 17

This session was conducted under the auspices of the Obstetrical and Gynecological Section. The program follows:

"Tuberculous Kidney, Presentation of Specimen," by Dr. O. H. Elbrecht. "Congenital absence of Rectum and Anus, presentation of Specimen," by Dr. A. N. Curtis. "Ovarian Tumors, Presentation of Specimens," by Dr. J. McH. Dean. "A Method of Teaching Vagino-

Abdominal Examination," by Dr. F. J. Taussig. "Report of a Cesarean Section," by Dr. Percy Swahlen. Chairman's address, by Dr. H. S. Crossen.

MEETING OF DECEMBER 21

The Oto-Laryngological Section held its monthly meeting on this date and listened to a paper by Dr. Greenfield Sluder entitled, "A Galvano-Cautery Operation for the Lower Turbinate."

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PHYSIOLOGY

(Continued from page 210)

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(To be Continued.)

BOOK REVIEWS

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia, December, 1910.

This number contains the following articles:

"Diseases of the Digestive Tract and Allied Organs, the Liver, Pancreas, and Peritoneum," by R. S. Lavenston, M.D.

"Diseases of the Kidneys," by John Rose Bradford, M.D., F.R.C.P., F.R.S.

"Surgery of the Extremities, Shock, Anesthesia, Infections, Fractures and Dislocations, and Tumors," by Joseph C. Bloodgood, M.D.

"Genito-Urinary Diseases," by William T. Belfield, M.D.

"Practical Therapeutic Referendum," by H. R. M. Landis, M.D.

TEXT BOOK OF BACTERIOLOGY. By Philip Hanson Hiss, Jr., M.D., Professor of Bacteriology, College of Physicians and Surgeons, Columbia University, New York, and Hans Zinsser, M.D., Associate Professor in charge of Bacteriology, Leland Stanford, Jr., University, Palo Alto, California. D. Appleton & Co., publishers, New York. Price \$3.75.

This work very happily fulfills its objects as stated by the publishers, as being intended for students and those practitioners who desire to keep informed of the advances of modern bacteriology, without searching the literature themselves.

The work is divided into five sections, section one relating to the general morphology of bacteria and their biologic activities; presenting in a very clear way the fundamental methods of cultivation and bacteriologic examination. Section two is especially valuable to the general practitioner since it presents in a very attractive form a review of our general knowledge at the present time of infection and immunity, discussing toxins and antitoxins, the technic of serum reactions, phagocytosis, anaphylaxis and facts of immunity bearing on treatment of infectious diseases. Section three takes up the consideration of pathogenic microorganisms, giving the staining and cultural characteristics of the various known forms. Section four is devoted to diseases of unknown etiology. Section five takes up the consideration of bacteria in air, soil, water, milk and milk products.

This is a work which will commend itself to every practitioner who desires to gain a general idea of the present status of knowledge of bacteriology as applied to the problem of the prevention and cure of disease. The price is low considering the size of the work.

J. E. D.

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

FEBRUARY, 1911

Number 8

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION COMMITTEE { M. B. CLOPTON, M.D., Chairman
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ORIGINAL ARTICLES

REPORT ON SIXTEEN SYPHILITIC PATIENTS TREATED WITH EHRLICH'S SALVARSAN (606)

M. F. ENGMAN, M.D., W. H. MOOK, M.D. AND
JOHN W. MARCHILDON, M.D.
ST. LOUIS

In September Dr. Simon Flexner of the Rockefeller Institute sent us a supply of Ehrlich's salvarsan (606), to be used for experimental purposes. The cases that we have selected for treatment with this remedy belong to unusual types and to those rebellious to the usual methods of treatment. The routine followed in every instance included a preliminary examination of the eyes, the nervous system, and a complete physical examination by competent specialists. Complete urinalyses, differential and leukocyte counts, and the Wassermann reaction were made before and after each injection. In a majority of the cases the injections were made according to Weichselmann's method. The Junkermann method was used in the later cases, however, following instructions from Dr. Flexner. A few of the patients treated by injections according to Weichselmann's technic required a small dose of morphin to relieve the pain. In all in whom the Junkermann method was used the injection was preceded by hypodermic of $\frac{1}{4}$ grain of morphin, and in every case a second dose of morphin was necessary to relieve the severe pain, which usually lasted from ten to twelve hours. Those injected after the Weichselmann method suffered only a moderate amount of pain and in only one case was it severe and lasting.

CASE REPORTS

CASE 1.—The patient, M. Q., a man aged 22, seen at the Skin and Cancer Hospital, was infected with syphilis four years previously. Treatment had been irregular, and followed only when lesions were present. The patient entered the hospital in June, 1910, at which time he had a large tubercular ulcerating syphilitic involving the upper two-thirds of the right

forearm; another 8 inches in diameter on the leg, and an ulceration of the inner surface of the left nostril, one inch in diameter. The patient was treated with mercuric bichlorid injections daily for ten months; also by local treatment of mercuric bichlorid packs, various salves, and milder dressings. Very little improvement resulted. He was then given injections of a 10 per cent. salicylate of mercury mixture once or twice a week up to saturation, together with iodids, forced feeding, and rest in bed for a month.

Improvement was noted for a time, the lesions showing some tendency to heal, but only temporarily. Oct. 6, 1910, the Wassermann reaction was still positive. The ulceration on the forearm was 2 inches in diameter, the one on the leg was 5 inches, and the one in the nostril was the size of a nickel. The urine was normal; the leukocyte count was 16,000. Oct. 6, 1910, the patient was given 0.6 gm. of salvarsan under left scapula according to Weichselmann's method. Considerable pain followed, lasting about twelve hours. The next day the site of the injection was infiltrated, slightly painful, and presented a tumefaction 4 inches in diameter.

Four days later the ulceration in the nose had healed entirely, and the ones on forearm and leg showed marked improvement. Twelve days later, the forearm was healed and the leg ulcer was only 2 inches in diameter, and healing rapidly. The Wassermann reaction was still positive, but eighteen days after injection it was negative, and all of the lesions had entirely healed, and the patient's condition was wonderfully improved. November 15 he was discharged from the hospital apparently cured. December 7 the patient felt well and had gained 12 pounds. The leukocyte count was 8,000.

CASE 2.—M. L., a girl aged 6, a patient of Dr. Blair, was treated at the St. Louis Children's Hospital. July 27, 1910, an ulcer was noticed on the left side of the soft palate, which increased rapidly in size. Injections of cyanid of mercury were continued for three days in increasing doses. August 15 a small indurated gummatous lesion appeared on the right thigh. In the next few days several small lesions appeared on the extremities. All of them became ulcerated, and increased rapidly in size within a few days. The mercury injections were increased, but the cutaneous lesions grew worse.

September 8 the injections were discontinued and $\frac{1}{10}$ grain doses of calomel were given three times a day, with increased doses of potassium iodid. September 30 the pupils became widely dilated, the patient could not see, was very restless, stammered in speech, and cried continuously. She developed tetanic convulsions that night, and morphin was used. October 1 there were muscular twitchings, retraction of the

head, rigid spine, unequal pupils, Cheyne-Stokes breathing, weak and irregular pulse. Mercury injections were begun and potassium iodid given by enteroclysis. October 3 the symptoms of October 1 had nearly disappeared; October 5 the Wassermann reaction was positive. A thorough physical examination was made preparatory to the administration of Ehrlich's salvarsan, with the following results: Weight 42 pounds; scars over the extremities, some of them rather pinkish in color, showing recent healing. There was swelling and induration of the right cheek, several ulcers on the mucous membranes of the mouth. The child was very weak and pale, and cried continuously. The pulse was weak and rapid; there was a foul, unbearable odor emanating from the mouth; heart and vital organs normal. Examination of the eye by Dr. Charles showed pupils dilated and maximum and absolutely irresponsive to light but child was blind from some central disturbance. The fundus was normal. Neurologic examination by Dr. Bliss showed kneejerks present, no Babinski of ankle-clonus; organic reflexes normal, cutaneous sensibilities acute. October 6, 0.15 gm. of salvarsan was prepared by the Wechselsmann method and injected into the cellular tissue under the left shoulder. The temperature was 99, respiration 26 and pulse 132, some hours before the injection. The leukocyte count was 12,000. The patient was miserable and restless, and morphin was administered during the night. No albumin or casts were found in the urine.

October 7, there was a moderate amount of swelling at the site of injection; no albumin or casts; right cheek more swollen; temperature 100; pulse 152; leukocyte count 18,000.

October 8, patient was very restless, pulse 120; respiration 32; temperature 102; leukocyte count 31,500; casts and albumin; odor from mouth worse.

October 9, there were albumin and casts in urine, leukocyte count, 33,600; extremities cold; scar tissue at site of healed ulcers had sloughed, leaving deep ulcerations; urine and stools involuntary; stimulants administered.

October 10 to 13, great improvement; patient sitting up in bed; some diarrhea; pupils reacted to light; exudate from ulcers; crying and moaning ceased.

October 14, pupils reacted to direct and consensual light; ulcers improving rapidly, both on the skin and in the mouth.

October 16, swelling of right cheek much less; stool semi-solid; appetite good; leukocyte count 18,200; albumin and casts.

October 17, patient voluntarily stated that she felt much better; great improvement was evident; much less odor from mouth.

October 27, temperature 98; pulse 90; respiration 22; patient counted fingers with either eye at 20 feet; cutaneous ulcers healed; patient walked about room and was gaining in weight; there was still a free flow of saliva; leukocyte count 10,000; albumin and casts.

November 4, a thorough physical examination was again made; all skin ulcers healed; two small ulcers on mucous membranes of gums not yet healed; heart normal; digestive tract normal; no albumin or casts; leukocyte count 8,200; neurologic examination normal; pupils equal and responded to light and accommodation; vision normal.

November 15, mouth was entirely well, except small ulcers on gum which were healing slowly; no albumin or casts. The patient seemingly well.

CASE 3.—I. B., a City Hospital patient, aged 38, was infected with syphilis fifteen years previous to being seen, since which time he has taken treatment at irregular intervals. Since June, 1910, the patient has had tubercular ulcerating syphilis of both sides of the nose; hard palate and septum both perforated; the septum ulceration still showed activity. He was

treated with daily injections of mercuric bichlorid, iodids internally, and various local applications until October 6, with very little benefit. Oct. 6, 1910, physical examination showed no abnormalities except nose lesions and purulent discharge from nose and pharynx; urine normal; leukocyte count 17,000; Wassermann reaction positive. Injection was made of salvarsan, 0.6 gm., after the method of Wechselsmann, subcutaneously under the left scapula. Three days later the ulcers on the nose showed marked improvement. No temperature or pulse reaction followed and the urine remained normal. Improvement in the ulcers continued rather slowly for four weeks, when they became active again; and in two weeks more were slightly larger than when the injection was given, and involved adjoining scar tissue that had been produced by mercurial injections. Seven weeks later the Wassermann reaction was positive. A second dose of salvarsan, prepared according to method of Junkermann, was injected into each buttock. Urine normal; leukocyte count 11,335. December 2 the ulcerations greatly improved and showed a tendency to heal; leukocyte count 10,925; urine contained no albumin but contained a few granular casts. December 12 the ulcers were healing rapidly; leukocyte count 12,000.

CASE 4.—E. G., a City Hospital patient, a man aged 29, was infected with lues in March, 1910, and entered the hospital in June. Examination showed a slight protrusion of bone over the sternum, extremely sensitive to the touch, which was present for two weeks; reflexes normal, except for general hyperesthesia; lymphatic glands in the axillae, epitrochlear and inguinal regions showed some enlargement. October 6 the Wassermann reaction was positive; urine normal; leukocyte count 14,800. Injection of salvarsan, 0.4 gm., was made subcutaneously under the scapula, after Wechselsmann's method.

Five days later the patient's general condition was greatly improved and there was less pain over the sternum; urine normal; leukocyte count 18,200; no temperature or pulse reaction; site of injection somewhat painful for twelve hours; tumefaction present at injection site; Wassermann reaction positive. One month later his physical condition was fine; site of injection still indurated, though not painful, and consisted of a slight elevated discoid mass three inches in diameter. There was a superficial necrosis appearing on the glans penis. The patient had never had a lesion on this area. He had gained $7\frac{1}{2}$ pounds, and was up to normal weight; his general condition was very good. Six weeks later the lesion on the glans had become much deeper, larger and phagedenic in character; urine normal; leukocyte count 14,300.

Seven weeks later the ulceration on the glans was quite deep. A piece excised and prepared according to Levaditi's method shows no *Spirochæta pallida*; Ducrey's bacillus not found. The patient did not feel well and had pain in right humerus; the sternum was slightly painful again; x-ray picture showed periosteal thickening of middle of shaft of humerus and some involvement of medullary portion. Eight weeks later the ulcer on the glans was healing; Wassermann reaction positive; urine normal; leukocyte count 13,650.

CASE 5.—F., a man aged 45, seen at the Jewish Hospital, referred by Dr. S. I. Selwab, had been infected with syphilis nine years previously, had very pronounced secondaries, and was treated for several months. He was well until five years before the time of examination, when his present trouble began. The patient was well developed and his color and nutrition were good; expression depressed; answered questions intelligently, but slowly; eyes showed diffuse swelling of lids; redness and tenderness over right supraorbital region. Urinary incontinence was present at times; there was vertigo and double vision, and occasionally patient complained of continuous pain and tenderness

in muscles, with marked weakness for the previous four years. Both legs had been swollen lately, with tenderness over tibiae; pain in chest; trunk rigid when walking; frontal headache on right side; all reflexes exaggerated. The spleen was slightly enlarged, and felt one-half to 2 inches below costal margin. On each tibia was an elevated hard mass 4 inches long and 2 inches wide, somewhat reddened and tender. The urine contained few casts. October 10 injection was made of 0.4 gm. of salvarsan after the method of Wechsellmann. Four days later there was less pain in chest and tibiae and the tibial tumors were smaller. Ten days later there was marked improvement; redness and induration of tibiae nearly gone; no pain in chest; no albumin or casts in urine. Fifteen days later the patient felt fine; there was no pain in chest or over tibial nodules. The skin over tibiae was loose; there was no pain, but the bone was still enlarged and rough; leukocyte count 9,800. Spinal fluid showed no cellular elements and was clear. The patient was discharged from the hospital on request, apparently well. The Wassermann reaction was positive.

CASE 6.—K. M., aged 25, a patient at the Skin and Cancer Hospital, gave no history of syphilis, but stated that her present lesion began on the right side of the nose as a small red papule four years previously. In July, 1910, the lesion consisted of a deep ulceration which had destroyed the lower right half of the nose and adjoining cheek for a distance of 1 inch, and almost the entire upper lip. The remaining septum was ulcerated and the superior maxillary bone necrosed, exposing the upper incisors and right canine in their entirety. The ulceration was granulomatous and there was a considerable discharge of pus.

Physical examination revealed no abnormalities; urine was normal; leukocyte count 8,000; Wassermann reaction positive. The patient had been treated weekly with intramuscular injections of 10 per cent. salicylate of mercury with some improvement.

October 25, injection was made subcutaneously of 0.6 gm. of salvarsan under the left scapula, after the method of Wechsellmann. The pain lasted two hours; leukocyte count was 12,000 twenty-four hours later. Six days later the patient felt fine and the lesion looked much better; discharge less; healthy granulations in ulceration; leukocyte count 7,500. Four weeks later the ulceration of the nasal membrane had healed, but the edges of the skin of the nose showed pearly epithelial proliferation. Five weeks later, sections excised from the edge showed the lesion to be an epithelioma. The teeth became much more firmly set in the alveolar processes; necrosed bone exposed; the nasal ulceration was healed but an epithelioma had developed on a syphilitic ulceration and x-ray treatment of the epithelioma was begun; leukocyte count 8,665.

CASE 7.—A. D., a woman aged 52, a patient of Dr. Grindon, had had good health until five years previously. Then she began to have nocturnal headaches, continuing for three years with great loss of weight. Lesions on trunk and extremities appeared in August, 1909, which left scars characteristic of syphilis. The patient had active lesions on her face which appeared in January, 1910, and which extended and continued to appear as tubercular ulcerations with crusting, rupial lesions over the entire face. The lids were much swollen, closing one eye completely; puffy and everted; nose and chin were infiltrated and cheeks presented a mass of tubercular syphilis. On removing the crusts the underlying surface was of deep raw-ham tint, superficially ulcerated at many points. Pharyngitis and characteristic congestion of the anterior pillars were present. The patient had been under treatment at irregular intervals. October 30, the Wassermann reaction was positive; urinary examination negative; heart normal. November 3, leukocyte count 12,500;

0.5 gm. of salvarsan was injected under the scapula by Dr. Engman after method of Wechsellmann. November 4, leukocyte count was 13,200; November 5, it was 12,000; four days later it was 12,000; Wassermann reaction positive; marked improvement of lesions. The infiltration had practically disappeared; outline of eyelids and lips was normal; discoloration as deep as ever. Two weeks later the patient was transferred to out-clinic. The discoloration was much less; no other remaining evidence of disease except scars on forehead and nose. Eighteen days later the Wassermann reaction was positive; discoloration fading, semifluid mass at site of injection slowly disappearing; no pain.

CASE 8.—G. McD., a man aged 24, a patient at the Skin and Cancer Hospital, applied for treatment in 1909 for scaly lesions on nose, eyebrows, elbow, neck and shoulders and was treated for two months with intramuscular injections of mercuric bichlorid after which most of the lesions disappeared; stopped treatment and a relapse of the lesions occurred within a short time. He stated that his treatment had been irregular, because a cessation of treatment had always been followed by an immediate relapse. Nov. 6, 1910, he entered the hospital, at which time all of the former erythematous, papulo-tubercular and scaly lesions were again active. The lesion on the right elbow was ulcerated and there were small ulcerations of the nasal septum. The patient's physical condition was otherwise normal; urine normal; leukocyte count 13,000; Wassermann reaction positive. The patient was given 0.5 gm. of salvarsan after the method of Wechsellmann. In preparing the mixture the salvarsan was dissolved in 0.1 per cent. sodium hydroxid solution instead of 20 per cent. In neutralizing, a large amount of sodium hydroxid was necessary, so that there were 30 c.c. of the mixture. This was injected subcutaneously under each scapula. November 8, and was followed by considerable pain for several hours at the site of the injection. Morphine gave relief. There was no pain twenty-four hours later; sites of injection were elevated and indurated; lesions paler. Leukocyte count was 17,650; urine normal. Eight days later sites of injection were infiltrated, but not painful; lesions on face nearly gone; patient said he felt better than he had for several years. Fifteen days later most of the lesions had entirely disappeared, and the patient had gained 6 pounds. Three weeks later all lesions were entirely well except the ulcer on the elbow, which had healed, and the only remnant of lesion was an erythematous, thin scar. The improvement was striking; Wassermann reaction positive; urine normal. Four weeks later the patient was apparently cured. The leukocyte count was 8,200 and the Wassermann reaction positive.

CASE 9.—Baby P., a bottle-fed private patient, referred by Dr. Doyle, was first observed Oct. 3, 1910, when she was 11 weeks old. The entire body was covered with an erythematous, scaly, macular eruption. The neck, trunk, and especially the genito-crural regions, were involved in confluent patches of the so-called luetic eczema. Both ears discharged pus, showing middle-ear involvement. The mother stated that the eruption had appeared two weeks after birth. The ear affection appeared a week before observation. The child's face had the characteristic, wrinkled, "old-man" appearance; she had "snuffles," and presented a typical congenital secondary syphilis. The Wassermann reaction, however, was negative. In view of the clinical diagnosis, injections were prescribed, and followed by immediate improvement in the general condition; the ears became well and the eruption disappeared rapidly. The injections were too irritating after a week, and powders containing one-half grain of mercury with chalk were given three times a day. The improvement was rapid, and the eruption disappeared without local treatment.

November 18 it was decided to give the patient salvarsan. At this time there were no skin symptoms of lues. The injection was prepared after the Wechselmann method, and 0.1 gm. was injected subcutaneously under the left scapula. Two days later there was a large elevated tumor of infiltration as large as a guinea-egg. The general condition remained good, except that the tumor from the injection was large and red at times, raising and reeeding. Twelve days later the tumor was as large as ever and the baby was very fretful. The temperature varied from 100 to 102 F. The tumor showed some infiltration, though there was no central softening. The luetic lesions showed no signs of recurrence.

On December 1 the nodule showed fluctuation and was incised. A small amount of fluid blood and pus was discharged.

December 6 the site of the injection was an elevated, indurated infiltration, 2 inches long, 1 inch wide and three-fourths of an inch high. The edges of the incision wound showed the mass to be organized, hard, and with no tendency to heal. The mother stated that there was constant constipation, relieved only by enemas, and that the general condition was not very good. Sleep was irregular, and at times considerable perspiration appeared over the forehead and scalp. Crying was paroxysmal. Nourishment was taken from the bottle at regular times. There was no indigestion.

December 12 there was marked improvement in the general condition. The site of the injection was still open; the discharge was serous.

CASE 10.—A. J., a private patient, aged 2 months, referred by Dr. Henckler, was first examined Nov. 13, 1910. The baby was covered with an universal, typical, macular eruption of syphilis, was very much emaciated and presented the characteristic "old-man" appearance, with "snuffles." The baby was born with the eruption on the hands, and moist papules around the anus. The Wassermann reaction was positive only to moderate degree. The baby was practically in a dying condition when first examined. Mercury with chalk was given three times a day for five days and some improvement was noted. November 18 it was decided to give an injection of salvarsan. Accordingly, 1 c.c. of a 6 e.c. mixture of 0.4 gm. prepared after Wechselmann's method, was injected subcutaneously under the left scapula. The baby was so emaciated that there was no subcutaneous tissue at the site of injection. It was first decided to give the treatment to the mother, but the child was in such a bad condition that it was deemed advisable to treat him directly to save time. The patient died twenty-four hours after the injection and a necropsy was not obtainable.

CASE 11.—W. McG., a man, aged 25, referred by Dr. Urban, was infected with syphilis, April 1, 1909, and put on treatment within two weeks. Three weeks later the secondaries appeared; three weeks after this, destructive tubercular ulcerations began to appear over his face and body, showing a rapid and malignant lues.

The patient then went to Hot Springs, Ark., where the lesions all healed under inunctions, after a seven weeks' course. The tubercular ulcerations reappeared in a short time, and when he was first observed at the City Hospital in February, 1910, most of his body was covered with large and small papulo-tubercular lesions and ulcerations. A course of injections of bichlorid cleared up all the lesions; but two months prior to admission they began to appear again at the old sites.

November 28 he had two large lesions 4 inches in diameter on the left arm, another on left thigh posteriorly, and a few smaller ones on the chest and back. The middle turbinate on the left side had sloughed away. He was pale and rather weak. The urine was

normal. Physical examination showed no visceral lesions; leukocyte count 11,350; Wassermann reaction positive. An injection of 0.5 gm. of salvarsan, prepared after the method of Junkermann, was given in the buttocks, preceded fifteen minutes by an injection of $\frac{1}{4}$ gr. of morphin. The pain was immediate and very severe. A second injection of $\frac{1}{4}$ gr. was given and morphin was again necessary one hour later. Twelve hours later his temperature had risen from normal to 102 F., the pain had disappeared and he was comfortable. He stated that all of the active lesions had a peculiar tingling, burning sensation, some of them being somewhat painful.

November 29 all of the active lesions, which had only shown superficial ulceration, with much crusting, were now red, deeply ulcerated, and there was considerable reactionary inflammation. Four days later all of the active lesions, except the one on the chest, which was much paler and less infiltrated, had sloughed, with a large amount of debris and pus discharge. He gained 5 pounds in weight in four days. Six days later the leukocyte count was 15,850; urine normal. The lesions were all healthy-looking granulating surfaces, with little or no infiltration. Daily improvement was rapid and marked. The urine was normal. Nine days later the surfaces of ulceration on the arm were quite red and apparently granulating. Close inspection showed the surface to be covered with a very thin film of epithelium as though the granulating surface had been painted with a weak solution of silver nitrate. Within twenty-four hours the thin epithelium covered the entire former ulcer, which was 3 inches in diameter, apparently not growing from the periphery, as is usual in the healing of this variety of ulceration. The patient on his discharge had gained 7 pounds in ten days.

CASE 12.—A man, aged 31, a private patient, had been infected with syphilis seven years previously. Eighteen months before examination squamous syphilids appeared on the thumbs; six weeks before examination typical papular, scaly syphilids developed on his nose and chin. Scaly, squamous lesions were still present on his thumbs. Physical examination revealed no abnormalities; urine was normal; Wassermann reaction positive; leukocyte count 9,900. November 17 an injection of 0.5 gm. of salvarsan was given after the method of Junkermann. The pain was very severe for twelve hours. Ten days later the lesions were nearly all healed. The Wassermann reaction was positive.

CASE 13.—S., aged 40, was referred by Dr. Unterberg with a diagnosis of tabes dorsalis. Examination revealed the following: first nerve normal; third, fourth and sixth unequal; pupils reacted slightly, if at all, to direct light, consensually or to accommodation; ocular excursions normal; fifth nerve, bilateral hyperesthesia over the nose and forehead; eighth nerve normal; seventh, facial innervation equal on both sides; sense of taste dull over entire tongue; tongue deviated to right on protrusion; other cranial nerves normal. Spinal nerves, cervical normal; dorsals, area of hyperesthesia on left side between third and sixth ribs, and over the abdomen in a belt extending from the lower margin of seventh rib to 2 inches below umbilicus; abdominal and cremasteric reflexes not obtainable; sensation of right leg good; left leg markedly delayed—one to two seconds; knee-jerks and Achilles reflex absent; no Oppenheim, Gordon or Babinski; movements incoordinate; Romberg sign present; Wassermann reaction positive; urine normal; leukocyte count 8,000. An injection was given of 0.5 gm. of salvarsan, after the method of Wechselmann. Five days later the patient suffered very little pain; general condition somewhat improved. There was no change in the tabetic symptoms. Two weeks later there was no improvement.

CASE 14.—W. S., aged 19, seen at Alexian Brothers' Hospital, was admitted to the hospital with a chancre on the prepuce, generally distributed maculopapular syphilid on face and body, intense throat symptoms, with great swelling of glands of neck and lymphadenitis in both inguinal regions. The patient was placed on inunctions daily for two weeks and the symptoms were slowly improving. Nov. 17, 1910, the throat symptoms, lymph-nodes and papules were still marked. At 4 p. m. the patient was given 0.4 gm. of salvarsan, after the method of Wechselmann. There was no pain for two weeks, after which the pain became very severe and the area at the point of injection very red. The following day pain continued, the face was flushed, and the area of injection had become very hot and painful to the touch. The pupils were dilated; patient had a diarrhea and temperature reached 100 F. The urine voided was in excess, turbid in character, and contained a large amount of precipitate of earthy phosphates. On the third day red blood-cells were present in the urine; the pain had subsided; the patient stated that he felt better than he had for two months; his expression was alert, skin perfectly clear; the entire eruption had disappeared over night. On the sixth day the Wassermann test was negative; throat symptoms had subsided; enlargement of glands was disappearing, the patient felt well and was discharged.

CASE 15.—G. R., aged 28, was referred by Dr. Lutz with a diagnosis of taboparesis. He had acquired syphilis seven years previously; no secondaries followed, and he had no internal treatment. Five months before he was seen by us he developed lightning pains in the legs, perineum, penis and testicles. Headaches were very severe during the last six weeks. The pupils were immobile to light and accommodation. Injection was made of 0.5 gm. of salvarsan on November 17, after the method of Junkermann. Examination showed Argyll-Robertson pupils, exaggerated knee-jerks, more marked on the right side, loss of pain-sense below the knee, retention of tactile sense below the knee, anesthetic cuirass 4 inches wide at the nipple-line; gastric and rectal crises and lightning pains; a slur in the speech, and the mental symptoms of incipient paresis. Two weeks later the patient showed no improvement.

CASE 16.—Mrs. C. aged 35, patient of Dr. Fischel, was referred with a diagnosis, made by exclusion, of syphilitic ulcers of the stomach. There was a definite history of syphilis, acquired three years before. Physical examination revealed no visceral lesions. Her symptoms were frequent vomiting, at times tinged with blood, and occult blood in the stools. The Wassermann reaction was positive; leukocyte count 9,000; urine normal. Injection was made October 16 of 0.5 gm. of salvarsan under left scapula after the method of Wechselmann. There was great local reaction, and two weeks later the site of the injection sloughed, leaving an ulceration the size of a dollar. Cultures from the lesion were sterile. Vomiting ceased within two weeks, and the blood disappeared from the stools. If the ulcers were syphilitic, they evidently became well in two weeks. The leukocyte count was 7,600 the next day after the injection. The history in this case is not as complete as it should be.

One is not justified, perhaps, in drawing conclusions from the observation of sixteen cases, but the following comments may be made:

The baby, two months old, who died twenty-four hours after receiving the injection was practically dying at the time, and the treatment was not responsible for its death.

Patient 3 (I. B.) was the only one to whom a second dose was administered, the first evidently not being large enough to kill all the spirochetes.

He then made rapid improvement. Patients in whom lesions were quite active showed leukocytosis, which became more marked in from twenty-four to forty-eight hours after the injection, gradually returning to normal in from two to four weeks.

Patient 2 (M. L.) developed nephritis, which soon cleared up without special medication.

Patient 14 (W. S.) had blood-cells in his urine, following the injection, but they disappeared in a few days.

The two patients with nerve syphilis, Nos. 13 and 15, returned for observation later and were undoubtedly worse than they were before the injections.

In Cases 9 and 16, the injections produced sloughing. The slough in Patient 16 healed nicely three weeks later. In Case 9, the incised tumor discharged sterile serum, but was very slow in healing.

The pulse and temperature reactions were slight, with but one or two exceptions. None of the patients showed symptoms of arsenical poisoning.

In those showing marked improvement, the gain in weight in some instances was striking.

To be perfectly fair, except in Case 2 (M. L.), we have seen equally as rapid disappearance of skin manifestations from the use of injections of mercury; but several of the cases herein reported seemed to be rebellious to mercury. Reasoning from analogy and our knowledge of chemical therapy, a certain per cent. of cases will also, no doubt, prove rebellious to Ehrlich's remedy; but no matter how many may prove rebellious, it has a remarkable effect on the cutaneous manifestations of syphilis.

Humboldt Building.

SURGICAL SUGGESTION *

T. F. LOCKWOOD, M.D.

BUTLER, MO.

Having heard and read of unfortunate happenings to surgeons by the apparently unavoidable accident of sewing up the abdominal cavity after an operation with left-in sponges and instruments, has guided me in the endeavor to think out some practical plan by which this dangerous mistake might be averted. We know that the present plan of counting sponges in and out again at the conclusion of an operation is lacking in thoroughness. The most skilled operators have not only been humiliated and chagrined by such accidents, but have become defendants in hard-fought damage suits. A miscount of sponges has been known to pass the vigilance of as many as three competent and careful observers including the operator. When such accidents

* Read by title, Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

happen under the most scrutinizing methods now in use it is sufficient proof that the system employed in recording sponges and instruments in abdominal operations is incomplete in its grand purpose. Such accidents are said to be due to carelessness on the part of the operator; but when we realize the great enthusiasm that completely overwhelms the operator when he has successfully detached and removed an abdominal tumor that, owing to its enormous size, its broad base, its vascularity, its vast adhesions, the bad breathing and weakened pulse from surgical shock, threatens the life of his patient at every moment of the procedure; when his head and hands are racing with the death messenger to see which shall win the victory; then it is that fallible man, the surgeon, succumbs to the exciting situation thus created and falls a helpless and unavoidable victim of forgetfulness. I believe it unjust and inhuman on the part of the public as well as the profession to censure a surgeon for such mistakes. When he is giving his entire attention to restoring his bloodless and almost lifeless patient, it is possible for the surgeon in such strenuousness to overlook a sponge or an instrument that might have strayed from the field of work and hidden in a fold of intestine or some other nook in the abdominal cavity.

If ninety and nine abdominal surgeons are free from such mistakes, let us not falter at trying to maintain the good reputation of the other one. If 499 patients are immune from the surgeon's blunders let us not proclaim that the per cent. of immunity is good enough and rest contented at that and allow the five hundredth one to perish for the lack of a safer system of operating. A forfeited life in the hands of the operator is not a direct blow at the individual surgeon, as might be supposed, but a lasting menace to the entire profession. So let us hunt out and destroy the little mouse that is insidiously gnawing a hole in the bottom of the ship, ere another craft is sunk. The per cent. of deaths from such accidents is much larger than might be supposed, for the cases that come to our observation are those that have been discovered by mere accident, where a secondary operation has revealed the fact, or where the sponge has been expelled by Nature through the intestine and out at the rectum. No doubt many a poor victim has carried the secret of his or her death in the way of a sponge or an instrument concealed in the belly to the grave and the cause of death given: died from the effects of the operation. I submit a plan, briefly outlined, which, if rigidly carried out, will practically prevent such accidents.

In making gauze sponges, have a numeral sewed in colored silk, or stamped with indelible ink, of a harmless character, in one corner of each sponge. This renders the figures indestructible in sterilizing the sponge. Have three packages of sponges arranged as follows: first pack-

age must contain small sponges, fifteen in all, numerals running from 1 to 15. This completes the first series and the package is to be labeled A15. The letter A designates the size of sponges contained in package and the numeral the number it contains. The second series must be a size larger than the first, running from one to ten, labeled thus: B10. Third series is still larger than B, running from one to five, labeled C5. This package should contain five large sponges or napkins used both for absorbing sponges and viscera towels in abdominal sections. Have sponges made uniformly, each package maintaining a regulation size.

By looking at the letter on the package we are apprised of the size of sponges contained therein. If the operation to be performed be of minor importance, packet A will probably answer. If, however, the operation be a capital one, requiring large sponges, package B, C or all may be broken, as the case might demand. When the operation is finished whether minor or major, count out the sponges by actual notation and if any number be lacking to complete the restored series, never cease searching until the missing number is found. If one or more packages of sponges are used in an operation it is as easy to complete the count in several series as it is in a single series except that it takes more time. If all the sponges are not used in any one package in a given operation, count out the unused sponges along with the rest to complete the full number in that particular series. While this may seem strenuous and an undue precaution imposed on the surgeon, yet I believe such methods would completely avert the possibility of leaving sponges and other materials in the abdominal cavity. It is the small essentials in surgery that go to round out the technic in operations, and if these fundamentals be carried out with nicety and mechanical precision at all times, we may expect greater results at the final outcome of all operations than could be hoped for otherwise.

The plan to avert the possibility of losing instruments in the abdominal cavity is a more complicated one than the former; but, fortunately for both the patient and the surgeon, this serious accident does not happen as frequently as the first. Surgeons do not leave their working tools in the cavity so much as they do other operative concomitants, but it has been done, nevertheless, and with fatal results, too. This being true, it should be an incentive to work out some preventive measure so that this class of surgery would rest on a more scientific basis mechanically.

Each instrument should have carved on it at some conspicuous point, a numeral. These numerals should run consecutively from one to as high as may be necessary to complete each surgeon's kit. This can be done by the surgeon himself and when a new instrument is added to

his list, let him carve a number thereon accordingly. When he places his instruments in the sterilizing vat preparatory to an abdominal operation, let him record by actual numeral each instrument as he places it; and when the operation is finished, check up by number each hemostat, scissors and all other instruments used or prepared for use in the operation. It is easier to compare figures accurately than it is to rely on sight to remind us of presence or absence of an instrument. We cannot enumerate the different instruments used in an abdominal operation 1, 2 and 3, as with sponges, nor is it necessary since we would keep a written record of all instruments used, and it matters not whether the numerals run in regular succession or whether they are recorded promiscuously as each instrument is hunted out after the operation in accordance with its corresponding number recorded.

If this system be rigidly enforced there need not be any more accidents of this character to disturb the professional tranquillity of our best surgeons. I trust this simple plan of surgical safety in abdominal work may appeal to all hospital surgeons and others who do abdominal operations.

TUBERCULIN THERAPY*

GEORGE C. CRANDALL, M.D.

ST. LOUIS

The development of tuberculin therapy began with the "old" tuberculin of Koch which, in 1890, he thought he had demonstrated to be of some value in the treatment of tuberculosis. There is not time to consider many of the numerous tuberculous products that have been used, but I think that we may with benefit review briefly some of the observations that have been made, and some of the existing opinions entertained relative to specific therapy in tuberculosis.

There are many observers to-day who believe that Koch was not wholly wrong in his original report on the efficacy of "old" tuberculin to relieve tuberculous infections.

Those who have read the reports of the last International Tuberculosis Congress and the articles on specific treatment of tuberculosis appearing more and more frequently in current medical literature, recognize that the subject is receiving more earnest attention than ever before; in keeping with the growing interest in the subject of specific therapy in general. Many believe that there is something of definite value in the existing tuberculins, and that still more efficient tuberculins and methods of using them may be found by the efforts of the increasing number of investigators along this line.

The early and some of the recent users of tuberculin have not all been sufficiently cautious in its application; consequently, with the favorable reports there have appeared others that are unfavorable; and it is not surprising that opinions so at variance with each other should have been entertained when we consider that the observers were for the first time using an agent possessing highly toxic properties with which medical science was unfamiliar.

Some of those who were discouraged with their earlier efforts have learned more accurately the limitations of tuberculin and better methods for its administration, and to-day, after years of experience, they are emphatic in their belief in its efficacy.

The tuberculin requires care in preparation and in administration. We occasionally find patients who are unusually sensitive to certain remedies, and those who use specific agents in tuberculosis should be watchful for susceptibility, anticipating untoward reactions and, by the use of carefully graduated doses, preventing them.

In 1895 I first began the use of antituberculosis serum, which I prepared by the method then used for preparing diphtheria antitoxin. During the past twelve years I have used tuberculin products, most of which I have procured from the Hoechst Fabrik; but I have also used with good results some of the tuberculin manufactured in this country. I have always purchased the crude tuberculin, which I dilute by the decimal dilution, so that 1 c.c. of each of five dilutions contains respectively 10 mg., 1 mg., 0.1 mg., 0.01 mg., and 0.001 mg. As a diluting medium I use normal saline solution, or 0.3 per cent. trikresol or carbolic acid in distilled water. That prepared with saline solution I use fresh; the other solutions are kept and used from one to four weeks, being preserved at ordinary room temperature. For convenience of administration I have found the syringes graduated in hundredths of a cubic centimeter most satisfactory. The outer arm or forearm is very accessible and suitable for therapeutic injections, because these small injections cause little or no reaction. Occasionally a possible reaction may be retarded for two or three days; consequently, three days at least should intervene between injections.

The objection that has been made by some observers to the administration of tuberculous products for therapeutic purposes is, that we cannot determine by the condition of the patient at the time of administration, at what moment an unusual amount of tuberculin may be liberated by the patient's own foci of infection, and that if such an addition should occur at the time of injection untoward symptoms may ensue. With the therapeutic use of tuberculin, the danger of a coincident autoreaction and induced reaction will not be of moment if the initial dose is suf-

* Read in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

ficiently small, the intervals long enough, and the graduation of the dosage conservative. In the beginning, with small doses the possible induced reaction would be slight; and as the dose is increased the patient will have gradually acquired a tolerance for the tuberculin, thus lessening any possible danger of a combined auto-reaction and induced reaction.

As any marked increase of physiologic activity may cause the tuberculous temperature to go higher than it otherwise would, which may be justly termed an autoreaction, we should have the patient well under control during the therapeutic use of tuberculin, and we should also be on our guard to decrease or omit a dose of the tuberculin for any condition of the patient, normal or pathologic, which might heighten its effect, such as undue exercise, excitement, menstruation, cold, bronchitis, injury, etc. As a rule, however, the early patient under treatment with tuberculin may follow his usual mode of living, provided his life is properly ordered as regards general hygiene; the later cases are preferably cared for at first in a hospital or sanitarium.

The value of Wright's opsonic index as a control for the therapeutic administration of tuberculin is now considered by most observers of doubtful utility. For practical purposes the clinical symptoms afford the most reliable information as a guide to frequency and graduation of doses.

The phenomenon of apparently heightened susceptibility to reinfection, arising in some cases with latent or recently active tuberculosis, has not been sufficiently observed in man to allow definite conclusions, and I do not think that it is of special moment in the careful use of tuberculin therapeutically. As regards heightened susceptibility to tuberculin resulting from repeated doses, I have not with the gradually increased dosage that I use seen any indication of such a result. Further, as regards anaphylaxis, or serum disease, I recall that when using the antituberculous serum some years ago I observed transient effects which may have been evidences of this phenomenon; but since using the tuberculin I have never seen any indication of such a reaction. Landis of Philadelphia reports some instances of serum disease as a result of using some of the antituberculous serums (not tuberculin).

Lawrason Brown of Saranac and others report that B. E. in large doses may cause sterile abscesses; so far I have not observed any from the injections that I have given. One of my patients who had received tuberculin previously has a few small sterile abscesses at the site of some of the former injections. They cause him no inconvenience, most of them having healed, and he is doing well at present on O. T. and B.

E. I think that with carefully graduated doses such abscesses can be avoided.

The indications which for me govern the use of tuberculin in a given case may be briefly expressed as active tuberculosis of any organ, with the following exceptions: miliary tuberculosis, on account of the acuteness of the process, has not appeared suitable for this treatment; pulmonary cases of mixed infection with much destruction of tissue are not encouraging, although the progress of the disease in some such cases has appeared to be materially retarded; pulmonary cases with maximum temperature of 101 to 103 F., pulse 110 to 120, without much destruction of tissue, while not favorable, sometimes appear to be benefited; and the terminal stage of the disease does not warrant its use. As with other treatment, the earlier specific treatment is instituted the better, and in some predisposed or exposed individuals under unfavorable conditions I think it may be used to advantage prophylactically.

I believe that tuberculin, if properly given, exerts a beneficial effect in the majority of cases, materially aiding in making some active processes latent, and in some of the less favorable ones retarding the progress of the disease. Patients who have not responded favorably to general treatment, or when the condition has remained stationary, appear to be given an impetus toward recovery; and they also seem to be safeguarded in a measure against the untoward effects of intercurrent diseases of other physically depressing influences.

In the main I am using human O. T., B. E., and B. F., regardless of the type of infection.

I give brief histories of the tuberculous patients I now have on tuberculin treatment, with conclusions based on apparent results. I wish to emphasize the fact that, in addition to the tuberculin treatment, most of the patients receive the usual general treatment as regards hygiene, diet, and medicines, the latter consisting chiefly of general tonics, laxatives, and occasionally cardiac tonics. The doses of tuberculin are expressed in milligrams.

CASE 1.—Male, age 24, was unusually strong until the summer of 1904, when he developed tuberculous spondylitis. Under general treatment and somewhat irregular tuberculin treatment the symptoms improved, with a tendency to recur at times. Treatment was discontinued and after a few months the symptoms were much aggravated. A jacket was used in addition to the other treatment and the tuberculin resumed; again he improved rapidly and discontinued treatment, feeling well during the past year until last July, when he developed pleurisy with effusion. After recovery from this, tuberculin treatment was resumed with steady improvement. Present dose, 3-200 O. T. and 3-200 B. E. every four weeks.

CASE 2.—Female, age 22, sister of preceding patient. Was usually well and strong, except for appendicitis, which was relieved by operation. In 1905 she developed tuberculous glands on both sides of the neck, which were very large. No treatment except Old

Tuberculin was used, beginning with 1-1000 O. T., increasing to 1-100. The glands rapidly disappeared until they could be felt as only slightly enlarged. Treatment was stopped and she continued well until last year, when, following an attack of grippé, the glands began to reappear, and again tuberculin was used. The glands disappeared as on the former occasion. She now takes 1-10 O. T. 1-20 B. E. every four weeks.

CASE 3.—Male, age 58. Seven years ago patient had a severe attack of pleurisy in the right side. Five years ago the apex of the right lung showed definite signs of tuberculosis. Bacilli were present. General treatment was used for one year, the patient failing gradually. At the end of a year tuberculin treatment was begun, and has been continued during the past four years, during which time the patient has gained somewhat in weight and strength, except following an attack of grippé two years ago, when the symptoms became more aggravated for a short time. He has continued at work and his life appears to have been at least prolonged and made more comfortable. The initial dose was 1-1000 O. T.; present dose 1-5 O. T. and 1-5 B. E. every two weeks.

CASE 4.—Female, age 35. About twelve years ago she developed tuberculous peritonitis, from which she recovered following opening of the abdomen. About three years after she developed tuberculous spondylitis, which was relieved by plaster jacket. In July, 1907, the spinal diseases recurred, more aggravated than at first. Tuberculin treatment was begun, the patient kept at rest, and a jacket applied. She has improved until she is now apparently in better health than at any time since the beginning of the tuberculous symptoms with peritonitis. The initial dose of Old Tuberculin was 1-10,000 O. T.; the present dose every two weeks is 1/10 O. T. and 1/20 B. E.

CASE 5.—Male, 30; developed pulmonary tuberculosis about six years ago in right apex. Bacilli present. Tuberculin treatment was begun about five years ago and has been taken since at irregular intervals, always with apparent benefit. As the patient improved, he would cease the treatment for a time with tendency to recurrence of symptoms. The symptoms were aggravated last fall and he again took treatment, improving in weight and general condition, the present weekly dose being 1-500 O. T.

CASE 6.—Female, age 35. In 1901 she was operated on three times without relief for a supposed tuberculous fistula. She was given O. T. for a few months and was again operated on for a fistula with favorable results. About two years after lung symptoms appeared in right apex, she resumed the tuberculin treatment, the watery extract (from choice), and is now apparently well.

CASE 7.—Male, age 36, husband of last patient, developed tuberculosis about six years ago, with incipient signs in the right apex, slight hemorrhages; tuberculin treatment was begun, watery extract (from choice) which he used at intervals for three years, since which time he has been apparently well, now using only an occasional dose.

CASE 8.—Female, age 36. About three years ago she developed tuberculosis at right apex. For a year she received general and hygienic treatment with tonics and improved, but some cough persisted. About eighteen months ago tuberculin treatment was instituted, since which time she has steadily improved, except during a period of about three months last winter and spring, when, following an attack of pneumonia and immediately afterward an attack of measles, the pulmonary symptoms became more evident than at any previous time. The cough, expectoration, and local signs increased. The tuberculin was resumed in conjunction with general hygienic treatment and at

present she is apparently well. The initial dose was 1-1000 O. T., the present semimonthly dose being 1-20 O. T. and 1-50 B. E.

CASE 9.—Male, age 23. Two years ago he developed tuberculosis in right apex; some bacilli were present. He stopped work for a month and began tuberculin, since which time he has gained steadily, with two interruptions following colds, when there was a slight return of the symptoms and a little hemorrhage on two occasions, but not sufficient to interrupt work. At present he is above his normal weight, temperature and pulse are normal and he feels well. His cough disappeared within a few weeks after beginning tuberculin, with a slight return during the two attacks of cold. The initial dose of tuberculin was 1-20,000; present dose is 1-10 O. T. and 1-10 B. E. weekly.

CASE 10.—Male, age 35. Fifteen years ago this patient had pulmonary symptoms, which were arrested, and there are none at present. Two years ago he began to have symptoms of renal tuberculosis, with occasional attacks of obstruction of the right ureter, accompanied by partial suppression of urine, with slight chill and fever 102 to 104. Temperature between paroxysms slightly elevated in afternoon, pulse 80. The symptoms continued, paroxysms becoming more frequent. One year ago a cystoscopic examination showed absence of a left uretral opening, pus in the urine from the right ureter, and bladder walls somewhat injected. Examination of the urine showed tubercle bacilli, some colon bacilli and occasionally a little blood. His general condition was fair. He had received the usual general and local treatment with only temporary relief, the paroxysms occurring more frequently. During the past year he has received tuberculin most of the time, with marked improvement in his general condition, looks well, has gained in weight, has much fewer uretral paroxysms, until at present they are slight, and at long intervals. The initial dose of tuberculin was 1-25,000 O. T.; present weekly dose is 1-50 O. T. and 1-50 B. E.

CASE 11.—Male, age 33. Lues four years ago, for which he took thorough treatment. About a year ago he began to fail in strength and showed subnormal temperature in the morning, elevation of $\frac{1}{2}$ to 1 degree in afternoon, slight cough and a little expectoration, no bacilli. Physical signs of tuberculous involvement in the left apex, von Pirquet test positive. Tuberculin treatment was instituted and he has steadily improved. The cough disappeared in a few weeks and physical signs have nearly disappeared. The initial dose was 1-1000 O. T.; present dose is 1-10 O. T. and 1-10 B. E. weekly.

CASE 12.—Male, son-in-law of Case 3, age 36. Last January I found physical signs of tuberculosis in his right apex; von Pirquet skin reaction positive. Tuberculin treatment was begun; he has gained to above normal in weight and feels perfectly well. Initial dose of tuberculin 1-5000; present dose 1-10 O. T. and 1-10 B. E. every one or two weeks.

CASE 13.—Male, age 18. About fifteen months ago he developed tuberculosis of the knee. A year ago the knee was considerably swollen and painful. It was placed in a splint and he was kept in bed for a month, tuberculin and general treatment being at once instituted. After getting up he was allowed to go about with crutches. There has been steady general and local improvement from the first until now he is apparently well. Initial dose was 1-5000 of a milligram; present dose is 1-50 O. T. and 1-20 B. E. weekly.

CASE 14.—Male, age 26. He has had tuberculous glands of the neck for years, some of which have been removed. Last winter these glands began to enlarge quite rapidly and soon after there developed tubercu-

lous conjunctivitis, confining him to a dark room for a short time. Tuberculin treatment was instituted during the attack of conjunctivitis, which cleared up rapidly. The enlarged glands have diminished in size to nearly normal; he has gained in strength and weight, and in every way shows a marked improvement, being apparently nearly well. Initial dose 1-10,000 of a milligram O. T.; the present dose is 1-100 O. T. and 1-50 B. E. weekly.

CASE 15.—Male, age 29. In 1903 he developed pleurisy in the right side. During the summer of 1907 he was apparently well and strong, at which time, while living on a ranch in Texas (not being there for his health), he developed a sharp attack of dysentery, which reduced his strength considerably. Shortly afterwards, signs of tuberculosis in the right apex appeared; some bacilli present. He improved somewhat under general treatment and in a few weeks began tuberculin treatment; first, watery extract, later continued with O. T. and B. E. The general and local symptoms have greatly improved, there is no cough, he is above normal weight, and apparently well. Present weekly dose O. T. 1-100, and B. E. 1-50.

CASE 16.—Male, age 24. Developed tuberculosis about four years ago, which has gradually increased in the right apex. Spent last year in Texas and New Mexico under unfavorable conditions without benefit, and last winter developed tuberculous laryngitis, since which time he has been unable to speak above a whisper. Last April there was quite extensive involvement of the right apex and some of the left. Afternoon temperature of 101-2, pulse 110, night sweats, and considerable expectoration containing numerous bacilli. Tuberculin treatment was begun. He has gained in weight and in strength, the sweats have disappeared and the cough is less troublesome, although there is still considerable expectoration and marked physical signs remain. The temperature now ranges from 99 to 100 in afternoon, pulse 90 to 100. The throat causes him no distress, but he cannot speak above a whisper. The initial dose of tuberculin O. T. was 1-50,000 and at present he is taking 1-50 O. T. and 1-10 B. E. once a week. Symptoms are improved and the disease appears distinctly retarded at least.

CASE 17.—Male, age 34. About 10 years ago he contracted lues, which has shown a tendency to recur. About four years ago had quite a sharp attack of pleurisy. Last spring, after unusual amount of walking, the left knee became painful, slightly swollen, and quite sensitive over the inner condyle; the lower end of the tibia was also somewhat sensitive. The Wasserman reaction was positive, as was also the von Pirquet test. He was given energetic anti-luetic treatment, and tuberculin, with rest for the leg for a few weeks, using crutches and later a cane. His general condition has improved very much and the local symptoms have nearly disappeared. The initial dose was 1-10,000 O. T.; the present dose being 1-20 O. T. and 1-20 B. E. weekly.

CASE 18.—Female, age 16. Last February she developed tuberculous disease of the left elbow. X-ray indicated that the upper end of the radius was involved. There was some pain and swelling with impaired use. Afternoon temperature of 99-100 and some loss in weight. Tuberculin treatment was begun late in February, since which time the symptoms have steadily improved, except for an occasional exacerbation when she has used the elbow too much. At present, however, she is able to do her usual work about the house and suffers very little inconvenience, except that she is not able to straighten the elbow perfectly and has some pain on over-use of the arm. The initial dose of old tuberculin was 1-5000; the present dose being 1-100 O. T. and 1-100 B. E. semimonthly.

CASE 19.—Male, age 20. Mother and sister died of tuberculosis. Two months ago he developed tuberculosis of left apex; slight hemorrhage; no bacilli found. Von Pirquet skin reaction positive. Initial dose was 1-10,000 O. T.; present dose is 1-100 O. T. weekly. He has gained in weight and appears to be improving steadily.

CASE 20.—Male, age 32. Three years ago he developed a tuberculous rectal fistula. Last May he was operated on and immediately afterwards tuberculin treatment was instituted and continued to the present, with no return of the symptoms, and patient appears in perfect health. The initial dose was 1-5000 O. T., gradually decreasing until he is now taking 1-50 O. T. and 1-50 B. E. every two weeks.

CASE 21.—Male, age 30, developed pulmonary tuberculosis about two years ago, spent part of last year in Denver without much relief. When first seen in December last he showed quite advanced tuberculous lesions in both lungs and signs of a cavity in the right; temperature ranged from subnormal in morning to 102 in afternoon, with pulse from 100 to 120. Tuberculin begun and continued to present without appreciable benefit. The initial dose was 1-50,000 O. T.; present dose 1-500 O. T., and B. E. 1-500 every five days.

CASE 22.—Female, age 30, single, began having occasional attacks of pleurisy about four years ago, usually during winter associated with cold or grippé; last January had quite severe cold with cough lasting about two weeks, when she began spitting blood in small amounts which continued daily for a week; physical signs indicated tuberculous lesion in right apex anterior; a few bacilli found in sputum; subnormal morning and slightly elevated afternoon temperature; pulse 85 to 90. Tuberculin begun, she has gained to her usual weight, cough and sputum have disappeared and physical signs are slight; during the time she has worked quite hard as dressmaker. Initial dose 1-10,000 O. T.; present dose 1-500 O. T., and 1-200 B. E. every five days.

CASE 23.—Male, age 31, about one year ago began losing weight and strength, with tendency to frequent colds as he expressed it; last December he had quite a severe attack of grippé, the cough persisted and he noticed a little blood on one occasion; physical examination showed involvement of right apex, temperature subnormal in morning and 99 to 100 in afternoon, pulse 100, some night-sweats, small amount of sputum with bacilli. Tuberculin treatment begun in January; he has gained steadily, weight increased 12 lbs.; all symptoms greatly improved. Initial dose 1-10,000 O. T.; present dose 1-500 O. T. and 1-500 B. E. every four days.

CASE 24.—Male, age 22, has never been strong; about five years ago some lateral dorsal spinal curvature developed and three months ago he began to suffer pain in the vertebræ involved in the curvature radiating along the course of the corresponding intercostal nerves, temperature ranging from subnormal to 101, pulse 80 to 95, loss in weight and strength. Rest in bed instituted and tuberculin begun; he is improving steadily but a cast and subsequently a corset will probably be applied before he gets up. Initial dose 1-20,000 O. T.; present dose 1-5000 O. T. every three days.

Total cases now on tuberculin treatment twenty-four, as follows: fourteen pulmonary tuberculosis, two tuberculous adenitis, one of whom had tuberculous conjunctivitis, two tuberculous knee, three tuberculous spine, one tuberculous rectal fistula, one tuberculous elbow, one tuberculous kidney. All are improving very sat-

isfactorily except two cases of advanced pulmonary tuberculosis and in one of these the disease appears noticeably retarded.

Let us review briefly the opinions of some of those who, in this country and abroad, use specific therapy in tuberculosis.

Lee, of Boston, who has used tuberculin in the treatment of localized non-pulmonary tuberculosis, reports the following results and conclusions: nine tuberculous adenitis, four lupus vulgaris, four genito-urinary tuberculosis, three tuberculosis of wrist, one case each of tuberculous knee, tuberculous spine, tuberculous peritoneal sinus, tuberculous rectal fistula, and erythema induratum; no patient was taken unless doing poorly from a clinical standpoint: and most patients continued their usual mode of life. Due attention was paid to fresh air, food and general hygiene. While the diagnosis was clinical in most cases there seemed to be no doubt in any case. The preparation used was B. E. In review of the cases Dr. Lee states that permanent conclusions cannot be drawn as many of the cases were still under treatment. His experience inclines him to the belief that intervals of quiescence, no matter how long, do not warrant the designation of the case as cured. He felt, however, that of the twenty-five cases that were arrested, twelve were distinctly benefited, five doubtfully benefited, and two uninfluenced by tuberculin; also that a striking feature of practically all the cases was a marked general improvement, thus enabling them better to combat the local disease. He believes that tuberculin must be continued over a long period of time, and that relapse may occur. The dosage should be small, the initial dose 0.0001 mg., and he had rarely found it necessary to give more than 0.001 mg.; marked reaction should be carefully avoided, intervals of inoculation about once a week and regularity of inoculations essential. The administration is simple and should be without discomfort to the patient. In no case was any apparent injury caused by the tuberculin, and he believes it a potent factor for good in selected cases of localized tuberculosis. As regards opsonic index, Dr. Lee believes that it may be of value in diagnosis and prognosis, but thinks it of no value as a therapeutic indicator.

Raw, of Liverpool, states: "After a long, extensive experience I am a firm believer in tuberculin, but different forms of the disease require different forms of tuberculin." For pulmonary tuberculosis he has used bovine tuberculin and for the other conditions Koch's tuberculin R. Twenty-seven cases of pulmonary tuberculosis treated with bovine tuberculin gave most satisfactory results; forty-two cases of lupus treated with ordinary tuberculin gave uniformly good results; thirty-one cases of tuberculous joints, some with suppuration and sinuses, gave good results, except the fixed joints; in twelve

cases of tuberculous peritonitis—four of the dry and eight of the fluid variety—all patients recovered. In seven apparently typical cases of meningitis, three patients recovered and four died; thirty-two cases of tuberculous abscesses and sinuses, many of them very chronic, gave only fair results. He states that in chronic surgical tuberculosis, if waxy or lardaceous disease of the viscera has developed, tuberculin is of no benefit. He further recommends the use of tuberculin on patients at their homes, having never seen the slightest ill effect or severe reaction if ordinary care is exercised in giving carefully graduated doses. He also is using it as a prophylactic in some exposed children.

Trudeau, in reporting on the use of tuberculin, gives the following summary: "If we accept the toxin immunization conception as the essential feature and guide to the treatment, instead of measuring the degree of a questionable antibacterial immunity by the opsonic index or attempt to produce it more or less empirically by a series of moderate reactions the severity of which we cannot in any way control, the main features in our treatment would be: to raise a degree of tolerance for tuberculin to the highest point obtainable in each case by an almost imperceptible and long-continued progression in dosage; to avoid general and local reactions as much as possible, and consider them merely as evidences of intolerance; to follow no arbitrary rule as to rate of increase or of the maximum dose to be reached, but to be guided merely by the degree of toxin tolerance of each patient, as shown by the symptoms and general condition, whether the highest individual maximum dose obtainable be only a small fraction of a milligram, or a cubic centimeter, or more."

Pottenger, writing in relation to human and bovine tuberculin, says that while all tuberculous lesions may be treated more or less successfully by tuberculin of either variety, yet his experience leads him to conclude that best results are obtained when we have at our command remedies made from both varieties of bacilli.

Ishigami, of Osake, Japan, conceding the efficacy of Koch's preparation in incipient tuberculosis, has prepared and used with marked benefit, as he reports, tuberculo-toxoidin, prepared by extracting and washing bacilli with sulphuric acid, somewhat analogous, as he expresses it, to Ehrlich's tetanus toxoid.

Osler in his latest text-book, writing on the specific treatment with tuberculin, says: "The use of tuberculin has again become popular, and the publications of Koch, Behring, Maragliano and Wright have shown that in certain cases it has a definite value."

Behring has always maintained the efficacy of tuberculin but, with a few others, notably Wright, is rather partial to doses sufficient to

produce reactions, believing that the immunity is more rapidly acquired by this method.

Wright, of London, uses doses of tuberculin sufficient to produce reactions, controlling the dosage and the intervals between doses through the evidence afforded by testing the opsonic index.

Kinghorn, in reporting on the therapeutic use of tuberculin, says he begins with much smaller doses than Wright, but increases gradually to much larger ones, aiming to give the patient immunity and not to keep his opsonic index high.

Baldwin states that the problem seems to be to create tolerance for the bacillus poisons and its products which have resulted from lysis, or to aid in their safe assimilation by the tissues; but he is doubtful whether serum-therapy will satisfy these demands.

Webb and Williams, of Colorado Springs, in conjunction with Barber of Kansas, working with living organisms similar to Klemperer and Moeller, have used living organisms on a few patients with encouraging results, beginning with a few organisms and gradually increasing the number, using the leg, arm, or forearm as the site of injection. Such work is suggested by the observations made by some to the effect that a local suppurative tuberculosis in a consumptive improves his condition and increases his resistance.

Brown, of Saranac Lake, states that the figures seem to indicate that tuberculin treatment is of value and the vast majority of all who have used this treatment are in favor of it.

Spengler, of Davos, uses B. F. of bovine origin.

Hammer, of Heidelberg, emphasizes his regard for tuberculin in his address before the last congress, as follows: "I want to break a lance before the forum of the International Congress of Tuberculosis in favor of tuberculin and for its extensive use in practice. This communication will have attained its end if it helps to regain the lost confidence of physicians and the uninitiated in tuberculin."

Deny, of Belgium, states: "We are quite certain that if all tuberculous patients could be injected during the closed or early open periods of the disease, the mortality of pulmonary tuberculosis would be low. The specific treatment is a reality and permits the saving of many lives."

Petrushky, of Dautzig, states: "Koch's tuberculin and similar preparations serve three important purposes, viz.: for the early diagnosis of latent tuberculosis, for specific treatment of the first stages of the disease, and to control the recovery. In Germany tuberculin as a means of diagnosis and treatment has been adopted by a great majority of tuberculosis specialists."

Bevan, relative to tuberculosis of the kidney, states that while he is afraid the value of tuber-

culin has not been fully demonstrated, he believes it should be used as an adjunct to other treatment, having seen several patients recover under this treatment.

Charles Mayo states that serum-therapy is again claiming wide attention, notwithstanding its many failures in the past: while the use of filtrates and attenuated living tubercle bacilli has many advocates who report success. In certain forms of joint tuberculosis these serums and vaccines have a distinct value. Their use offers no difficulty, and they are at least more promising than the various non-specific injections that are used in the hope of developing better repair than can be accomplished by the patient unaided, or aided only by general hygienic treatment.

Godlee, of London, in the Bradshaw lectures, expresses himself in general as favorably inclined toward the new vaccine therapy in tuberculosis; his experience leads him to state that it is impossible at the present time to promise uniformly good results, and that he is far from convinced that it is destined to replace all other medical aid and surgical measures; it cannot be expected that vaccine therapy will prove more than a valuable adjunct to other treatment.

This brief review of the observations of a number of representative workers with tuberculin in this country and abroad warrants, I believe, its more extensive use, and affords a valuable adjunct to the treatment of most types of tuberculosis. I also believe that any physician who will observe carefully the general conditions governing its administration can give it safely, especially since the tuberculin can now be obtained in single doses of various strengths. Its effect is not to be hastened, since the disease is usually slow and we have time as a rule slowly and carefully to establish in the patient a tolerance for tuberculin, which is the essential element of the specific treatment.

In reviewing the above opinions, many of which appear in the proceedings of the Sixth International Congress on Tuberculosis, there appears a marked uniformity in the views, and I think that the following conclusions fairly express the ideas of the majority:

The tuberculins appear to be of value in the treatment of most types of tuberculosis.

Used carefully tuberculin is safe.

Tuberculin should be used in connection with generally recognized hygiene, dietetic, and medicinal treatment.

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DISCUSSION

DR. W. H. LUEDDE, St. Louis: I have followed the use of tuberculin in my own practice and in consultation in some twenty or twenty-five cases of ocular disease. I am pleased that Dr. Crandall states that tuberculin is of value. It has certainly proved so in all my cases. The first case in which I used it in this country (in 1906) was a young lady, aged 24, who was

suffering from a severe keratitis parenchymatosa producing much iritic pain not controlled even by atropin. The injection of Koch's old tuberculin made the diagnosis positive. This young lady seemed perfectly well, so far as physical signs were concerned. Her family history was not good. The treatment was continued after the positive general and local reaction, with the result that the pain entirely ceased, the process stopped and vision improved. She had been vainly treated for a supposed luetic condition and had grown steadily worse before I began the tuberculin therapy. While my experience with tuberculin has been uniformly successful, I recently thought I had met with an exception. This case, a young man of 16, came to me with parenchymatous infiltration in the center of the cornea, which could scarcely be mistaken for anything but a tuberculous inflammation. The family physician stated that the boy had not been strong and well for some time but he had never found any physical signs of tuberculosis. The injection of 0.0005 milligrams, a dose from which I had not gotten any trouble, was followed by a violent local reaction in the eye which did not subside as usual. It was anything but pleasant to see a small infiltration of the cornea followed by such a violent reaction, although I had the satisfaction of knowing that my diagnosis was correct. At that time I became interested in the scaphoid scapula. This young man had no indication of lues, but I found a deeply concave vertebral border. I sent for his father, and asked him if there was anything in his own life that might have a bearing on the boy's condition. The father said that thirty years ago he had syphilis and was treated for three years. I immediately put the boy on bichlorid of mercury (gr. $\frac{1}{2}$ t. i. d.) and syr. iodid of iron. After four weeks I repeated the dose of tuberculin with but little reaction, and after three weeks more I gave double the dose (0.001 mg.) with no reaction. The condition is now entirely relieved and vision is excellent. I wonder how many times tuberculin may have been used where there was a masked syphilis which, by lowering the resistance, interfered with its action and the failure was blamed on the tuberculin therapy. Dr. Graves' observations of scaphoid scapula have had my respectful attention ever since this experience. I can heartily endorse Dr. Crandall's remarks on the value of this treatment and also on the necessity for careful management.

DR. J. M. BRADLEY, St. Louis: Has Dr. Crandall ever had any experience with tuberculin in tuberculous meningitis?

DR. O. H. BROWN, St. Louis: During the past three years I have had some three hundred cases of tuberculosis at the sanatorium. We gave them mainly rest, fresh air and good food. Some of the patients were only there a week or two but between 90 and 95 per cent. of all cases showed improvement. I do not mean to say that they would have continued to improve had the treatment been continued, but they did show improvement. In some cases I used tuberculin. I did not perhaps give it a fair trial, but I did not see any benefits. However, Dr. Crandall has certainly had good results. Consumption is not a disease of the bacillus tuberculosis and its toxins only; it is a disease of mixed infection—staphylococcus or other microorganisms and their toxins—and on top of that ptomaines from the diseased lung tissue, so that the tuberculin cannot work effectively, for it is only stimulating against one organism instead of the whole syndrome. I favor auto-inoculation. I keep the patient in bed until the fever has been gone for some weeks and he is gaining in weight, gaining in appetite and feeling better generally. Then he is allowed a little exercise, perhaps sitting up a few minutes each day, perhaps going to the toilet instead of using a bed pan, or perhaps going to the dining room. If the temperature does not increase, then he is allowed this privi-

lege every day. In other words, it is a graduated exercise that gives the patient the necessary stimulation from his own foci. In those cases that go on to a stage where they become more or less stationary, the stimulation from regular injections of tuberculin will do good. In localized infections in the eye or a joint where absorption can be controlled, tuberculin is indicated. The Wright method is not applicable for physicians in general practice. In St. Mary's Hospital, in London, they have laboratory physicians who are testing the blood constantly and the opsonic index is readily obtained, but the general practitioner has too much difficulty with this and I think it is, therefore, best to go by the clinical indications.

DR. JOHN MARCHILDON, St. Louis: I am greatly interested in this subject and while there has been naturally a great deal of skepticism, we know to-day that there is something in the theory of Wright, and we know there is such a thing in the blood as opsonins, but we also know that the clinical symptoms are a better guide for treatment than the opsonic index. In furuncles the use of vaccines has given the best results in babies. At first it is well to try the ordinary stock vaccines, but when these do not produce a definite reaction, vaccines from cultures from the case may produce a cure. Vaccines also have a distinct curative effect in pneumonia and typhoid. In tuberculosis there is probably no question but tuberculin is of value. Small abscesses at site of injection of vaccine are undoubtedly due to dead bacilli.

DR. CRANDALL, in closing: I have had no experience with tuberculous meningitis. I was much pleased with Dr. Luedde's report. About a year ago Dr. Barek and I were both surprised at the rapidity with which a tuberculous eye condition improved. I believe tuberculin is of especial value in localized tuberculosis. As to the opsonic index, the majority of the users of tuberculin do not use it. Of course, all open cases are of mixed infection but I have seen marked improvement in such cases. The vaccine therapy is now being applied to those cases, both staphylococcus and streptococcus, but not having used these vaccines in conjunction with tuberculin I cannot speak from experience.

DR. GEORGE GOINS, Breckenridge: Will not anything else, *i. e.*, any other serum that raises the opsonic index, be of as much value as tuberculin?

DR. CRANDALL: From what we know of tuberculin, it is believed by some better to use a vaccine of the specific organism. Some are using the autogenous vaccine, *i. e.*, they are making a tuberculin from the individual's own bacilli. In addition to the tuberculin, I use the general dietetic and hygienic measures, using tuberculin as an adjunct to other treatment, and I know I have seen results that I did not see under the old treatment, and some cases that did not respond to general treatment alone, I have seen respond to this treatment, and finally recover. As to the further use of toxins and serum, I am hopeful that other toxin treatment combined with tuberculin may increase its value, especially in mixed infections.

A PLEA FOR THE MERIT SYSTEM IN THE SELECTION OF OFFICERS AND EMPLOYEES FOR THE STATE HOSPITALS OF MISSOURI*

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It is hardly necessary to say to this audience that civil service is all service rendered the nation, state or city, except Army and Navy

Read before the Medical Society of the City Hospital Alumni, Dec. 1, 1910.

service. The term, however, now has special reference to that part of the service which has been removed from political control. Civil service employees are those selected by competitive examination, holding their places through administrations of varying political faith, their tenure depending on their efficiency, not on their party alliances.

The greatest growth of the application of the principle has occurred in the past twenty-seven years (since 1883), when under Grant's administration a large number of federal employees were placed under the rules of classified service. But there has been a growing conviction ever since our nation was founded that efficiency demanded continuity of service during good behavior.

Following the example of the federal government a large number of cities have adopted a merit system adapted to their needs. Los Angeles, San Francisco, Denver, New Haven, Des Moines, New Orleans, Boston, Duluth, Trenton, Philadelphia and many others. Many of the large corporations of the country are recognizing the advantage of a systematic examination of all applicants for employment. They do not call it civil service, of course, for it is not; but some form of examination, some sort of inquiry, some kind of record of fitness, is established.

What kind of examination is given if left to the judgment of the person who selects employees?

It is one of the aspersions cast on the merit system that the method is not practical, that the examinations are not of a kind to determine real fitness. I am told, however, that in Illinois the service of the best physicians, the best engineers, the best in each profession, is offered the state in devising the kind of examination best adapted to determine fitness of applicants in their respective departments.

Under the present system of management of the state institutions a board is appointed by the governor for each hospital. This board is selected from the district in which the hospital is located and usually consists of men of the same political party as the administration; at any rate the majority of the board is of this party. This board selects the officers and employees of the hospital although the selections are often dictated by the governor. Under this plan we constantly get men who know nothing about the management of an institution. The management of a large number of people requires experience, and there are several members to-night who will testify to this fact. There are constant changes of superintendents. Last year at this time there had been four different superintendents in three years at Farmington and three in three years at St. Joseph. Each change of superintendent brings about changes in the under officers and help generally. None of the officers remains

longer than is necessary to make him familiar with the work even if he is four years in service. The state loses his services just as he has reached the greatest usefulness. The training of four superintendents in one hospital in three years is at the sacrifice of the welfare of the sick poor. Officers should grow up in the service. Examinations or investigations must be practical, but they should be given, records kept, and appointments made from an eligible list.

The civil service rules apply in Illinois to all the employees of the state hospitals, except superintendents and one or two other officers. In New York they require for superintendents five years' experience in an institution for the insane, three of which must have been above the grade of assistant physician; also competitive examination. To get men thus well prepared for their duties we must in the west establish a system which will admit interns after competitive examination who will be afforded an opportunity to work their way up through the various grades to a superintendency.

It has rarely occurred in Missouri that a superintendent has gone from one institution to another, or that an assistant in one hospital has been made superintendent in another. Rarely has a trained man been selected on account of his training. It has happened occasionally but rarely. I believe in a central board to manage all the hospitals. At present each board goes to the legislature with its own budget and the one which can swing the most influence gets the most money for its hospital. A central board could take the amount granted by the legislature and apportion it most fairly to the needs of each hospital. It was shown in Illinois that \$20,000 was saved in one year in the purchase of coal for one hospital when the central board made the contract. A central board is not hampered by a local alliance.

I will read you what the great Tammany philosopher, George Washington Plunkitt, has to say in regard to civil service:

"We hereby declare in national convention assembled, that the paramount issue now, always and forever is the abolition of the iniquitous and villainous civil service laws, which are destroyin' all patriotism, ruinin' the country and takin' away good jobs from them that earn them. We pledge ourselves, if our ticket is elected, to repeal those laws at once and put every civil service reformer in jail."

And then, in his enthusiasm over the mere thought of what would happen, the veteran Tammany chieftain continues:

"Just imagine the wild enthusiasm of the party, if that plank was adopted, and the rush of Republicans to join us in restorin' our country to what it was before this college professor's nightmare, called civil service reform, got hold of it! Of course it would be all right to work

in the platform some stuff about the tariff and sound money and the Philippines, as no platform seems to be complete without them, but they wouldn't count. The people would read only the first plank and then hanker for election day to come to put the Democratic party in office. I see a vision. I see the civil service monster lyin' flat on the ground. I see the Democratic party standin' over him with foot on his neck and wearin' the crown of victory. I see Thomas Jefferson lookin' out from a cloud and sayin' 'Give him another sockdologer; finish him.' And I see millions of men wavin' their hats and singing Glory Hallelujah!"

The merit system in some form is being applied to public service in part in nearly all the states, and at the present rate of growth will, in ten years, cover the great majority of employees of the nation, states and cities. Under the merit system in state hospitals, a superintendent may discharge any employee under him for neglect of duty. There must be just as efficient method of firing, as of hiring. The commission has the right to examine the cause for discharge. If this is not adequate the employee may be reinstated. This has rarely happened where the merit system is in vogue for no superintendent wants to lose an efficient employee. Political influence cannot hold a useless employee in service. There is a square deal.

A graded service with promotion on merit and continuity of tenure during good behavior will bring into the service of the state the most competent persons. There would in the medical service be an opportunity for a young graduate to start in as intern at a salary of say \$25 a month, and work up to a superintendency at \$4,000 a year. There would be some incentive, an assurance that if good work is done a place to continue good work will be provided.

DISCUSSION

DR. THIERRY: This question has interested me very much. I would like to call your attention to other states where civil service does not prevail. Meeting a gentleman, a manager of one of the institutions in Massachusetts of twenty years' service, I brought up this subject. This institution had never been brought under political influence. He had never been approached nor had he ever heard of anyone else on the board who had been sought to show political preferment in appointments or contracts. In Michigan politics does not enter into the management of its insane asylums. They have a good system. I met the superintendent of an Iowa institution who had been there through various administrations for fourteen years. It is possible under the present system to have a good management and to keep politics out of it entirely. On the other hand, in the State of Illinois, it was absolutely necessary to establish some system to eliminate politics, and I believe that this applies to Missouri. The cardinal points of the merit system are: efficiency of service and continuity of service. The trouble in the past has been that the material management has been considered to the neglect of the medical. If you go to one of these institutions, the superintendent will say, let us take a walk around

the farm. It is not a question of the farm but of the patients, and if you accompany him through the wards he will not call attention to any particular patient, but pass through in an inanimated and desultory manner. The importance of the material management is always accentuated in an argument for the establishment of a central board. I am credibly informed that the various superintendents confer with one another before the purchase of supplies. If the individual superintendent went in the open market he would be able to buy his supplies at as low a figure as when purchased by a central board for the reason that the quantities are sufficiently large in the individual purchases to command the lowest figures.

Efficiency of service from the medical aspect implies the application of psychic treatment to the insane. Those new to the work cannot grasp or understand the fundamental principles of psychic treatment. As a consequence the medical work lags and falls short of the best standards. About the time that he learns to master this important branch of his work, his term of office expires, and a new recruit is introduced. The process then repeats itself.

Continuity of service is the second in importance. The gist of this question is the appointment of capable officers and employees, and their retention in office as long as they are qualified. I believe such a measure should be brought before the legislature and if it is adopted we will have a better grade of service for the institutions.

DR. DORSETT: As to civil service I do not believe it amounts to anything. In the first place, all the boards appointed by the governor control the superintendents. As far as the minor employees are concerned, down to assistant physician, they can be gotten rid of easy enough, if it is so desired. They have had some men there, who have been discharged "for the good of the service," so to speak; this is bad.

DR. THIERRY: Michigan is all right, and they have no civil service method.

DR. DORSETT: I am glad to know of a good method where civil service will never prevail. I think so long as one political party is in power it works all right, but as soon as the party changes it is all wrong. I think that has been the experience of most superintendents.

In regard to the management, I think it should be managed by two men. One could take care of the patients and the other take care of the material management.

DR. THIERRY: Who would be superior?

DR. DORSETT: There ought not to be any superior.

DR. THIERRY: Which is the more important?

DR. DORSETT: Why, as a matter of fact, the patients. That is from our standpoint but not always from the standpoint of the public. The management of the institution is often neglected, either the superintendent is not a good business man and manages the institution in a poor way, or he is not a good man in the treatment of the nervous diseases and the patients suffer.

In the Institution for the Criminal Insane, at Auburn, in the State of New York, they have a man who takes care of the business part entirely and the superintendent has absolutely nothing to do with it. And this institution is a model so far as its general management is concerned.

DR. UNTERBERG: I think Dr. Bliss gave you an accurate picture of the conduct of state institutions. After a service of three years at State Hospital No. 3, at Nevada, I may be able to give you some information on this subject. The institutions buy their supplies as individual units.

There is no cooperation among them. To give you an example, when Fulton was paying \$4.80 per hundred pounds for beef, we paid about \$6.30. Other

supplies also showed considerable difference among the various asylums.

During a period of three years the four state hospitals for the insane had thirteen different superintendents. Some took the position for the honor attached to it and to round out a medical career; few because they had any special interest in psychiatry. Dr. Kuhn, I believe, was the only one who had specialized in mental diseases prior to his appointment. Using men who have no special training does not help the efficiency of the institution. Dr. Dorsett said something about the frequency of scandals. I believe you can raise a scandal at almost any time at a state hospital, as often as you need a change of administration. From a medical standpoint, there is very little work done in the institutions. Few assistants go into the work with the idea of sticking. They do not expect to stay through more than one or at the most two political administrations. The frequent changes do not make for efficiency. If civil service or a merit system was put into practice, I do not see how any one could reasonably object to it if it would tend to prolong service and thereby promote efficiency. There has been but very little accomplished for the advancement of the study of psychiatry in Missouri where we have about 7,500 people confined. This rich material is almost wasted.

I do not think Dr. Thierry's information concerning the superintendents getting together to purchase supplies is correct.

DR. THIERRY: The basis of my remark came from the State Board of Charities. I never served at any state institution.

DR. UNTERBERG: The Board of Charities' information concerning state institutions is not always correct.

DR. SALE: I am unable to see how the fact that in a few specific instances superintendents of asylums have held office for a long time, that is, have been able to hang on, can prove the efficiency of the present system, as the gentleman who preceded me seems to reason. In Missouri we have had men who have held office for a long time, under the partisan spoils-system, but from Dr. Bliss' argument, I take it, he would have it so changed that only such men could be selected and retained in office who demonstrated their ability. The merit system whereby a man's fitness for an office is to be determined, is surely preferable to one in which his choice depends on "pull." Under the one system a man must apply himself steadily to the work in hand, while under the other he is kept busy building his fences and seeing to it that his wires are well laid. It must be evident to one who is only superficially acquainted with the literature that the work which is done in states in which the merit system or civil service obtains, is far in advance of that which is done here. New York, for instance, since Adolph Meyer revolutionized the service, has achieved a record for good work, of which any state might justly be proud and which ought to put us to shame. I think that this society owes its unqualified approval and its hearty support to the merit system.

DR. BLISS: The remarks of Dr. Dorsett and Dr. Thierry have been answered by Dr. Unterberg and Dr. Sale.

The methods of selection of employees at present in vogue are not those of successful business enterprises. Such methods would bankrupt any ordinary business. Fortunately the state cannot go bankrupt.

The Burlington road is a good illustration of the merit system in securing competent workers. No applicant is accepted without examination or investigation and a careful record is kept covering qualifications and efficiency in the service. If the administration of the Burlington changed four times in three years and new and untried men were put in charge

what think you would be the fate of the business? A man may be a very good doctor or a very good surgeon and be the poorest kind of a stick for the management of a state institution for the insane.

I have been dealing with the insane for many years but would not now consider myself competent to manage a large institution. I could learn of course, but how much better it is to have a well trained man. Take a man out of medical college, let him have his general hospital service, then admit him on competitive examination to a salaried internship in a state hospital. Put a goal ahead of him and you will produce men who study and treat the insane, not merely act as custodians who attend only to housing and feeding them.

There has been no difficulty in securing the cooperation of the best men in every profession where the merit system has been tried. They have offered their service freely in devising methods of examination adequate to secure good servants for the state. In New York trained men have been brought into the service of the state. It has made it possible for men like Adolph Meyer to do for the science of psychiatry what they have. There should be a uniform classification. In Missouri you cannot tell a thing about the various types of insanity, how frequently they occur, the percentage of recoveries, the influence of the treatment, because few of the superintendents or assistants are trained psychiatrists, few capable of applying the well recognized modern methods of classification. I believe we will have some sort of a merit system in the state hospitals of Missouri. The support of the medical societies is essential to success. I hope the Medical Society of the City Hospital Alumni will declare itself in favor of the merit system.

OBSERVATIONS ON THE SURGICAL TREATMENT OF EXOPHTHALMIC GOITER *

WILLARD BARTLETT, M.D.

AND

W. P. GLENNON, M.D.

ST. LOUIS

In the radical cure of Graves's disease, the skill of the surgeon is tested fully; good judgment and care demanded.

The preliminaries to the operation, the actual removal of the gland and the after-treatment are important and each must be carefully considered in order to get good results.

It is essential to prepare your patient thoroughly before any surgical intervention is attempted; particularly is this true in the severe types of the disease where the pulse-rate is very high and extreme nervous conditions are present. This preparation should extend over a number of days or even weeks, according to the severity of the case. During this time the patient should be kept in bed, ice applied continually over the heart, and atropin administered internally until the pulse-rate shows a marked diminution, if possible below 100 per minute. It may be necessary in order to accomplish this to push the atropin even to the physiologic limit.

Permanent tachycardia is a contra-indication to any operation, as it shows that myodegenera-

* Read before the St. Louis Medical Society, June 4, 1910.

tion has taken place in a heart long subjected to continuous overwork as a result of hyperstimulation.

When the patient is placed on the operating table the head should be elevated, and should be kept so during the operation. This position diminishes hemorrhage, which is one of the dangers of the operation, and this idea of reducing hemorrhage must be kept continually in mind all through the work of removing the gland. The greatest care must be exercised in avoiding all unnecessary manipulations of the gland. Every move made by the operator and his assistant must have a definite reason, and gentleness of touch is absolutely necessary. This, however, must be combined with swiftness so that the operation is completed in the shortest possible time. The hemorrhage must be entirely under control. This is done in part by finding the right line of cleavage within the goiter capsule and by controlling the veins that connect the goiter with its capsule. These veins are often numerous and it may be necessary to use several dozen forceps in a single case. Loss of blood to the point where it can be detected in the patient's condition is wholly inexcusable and incompatible with modern technique. Never look for the recurrent laryngeal nerve but rather leave a portion of the gland covering the trachea *in situ*.

In this series of thirty-four cases operated on, some as early as 1904, a partial thyroidectomy was done in all except two cases. In one of these two cases the superior thyroid artery was ligated on one side, and the other had a large cyst removed from one of the lateral lobes. A solution of beta-eucain, one-half of 1 per cent. was used in most of the cases. This was injected into the skin along the line of the incision with an ordinary antitoxin syringe, no anesthetic being used in the deeper tissues. Practically no pain was complained of by the patients except on retracting the skin, and occasionally a sense of suffocation when the gland was manipulated. It occurred on a couple of occasions where the patient became so restless on being placed on the table that the very act of introducing the hypodermic needle caused bitter wailing. With these cases no time was lost, but a general anesthetic administered (always ether) and continued only while the skin incision was being made. The collar incision of Kocher was made in all these cases. Special care was taken to avoid hemorrhage and usually the towels around the field of operation were scarcely soiled. It may be noted, however, that occasionally a case appeared somewhat unsightly where, owing to the extreme thinness and friability of the veins and tissues, the forceps could not be retained in place, and some bleeding occurred. This was controlled temporarily by sponge pressure while the gland was being quickly removed. A rubber drain was used

in all cases and removed when the serum ceased to ooze.

In some of the severer cases hypodermoclysis was employed immediately after the patient was placed in bed and the pulse-rate remained high; the tincture of digitalis (combined with bromids if the patient was restless) was administered every few hours. The results from these drugs were very pleasing. Adrenalin solution was also used in a few of the worst cases and was apparently of much benefit. The solution was injected deeply into the muscles to avoid the irritation which usually follows the hypodermic use of this drug. The patients were allowed out of bed as soon as a decided improvement was observed in the pulse-rate and heart action.

Of these thirty-four cases, thirty were in women and four in men. The ages ranged from 17 to 70 years, the majority being between 30 and 40 years. On leaving the hospital twenty-four of these were surgically well, four were greatly improved, one felt fine for a few days, but then had a recurrence of her old symptoms, and there were three deaths. One of these deaths occurred two days after the ligation of the superior thyroid artery on one side, with all the evidence of acute thyroidism; another died after removal of a very large goiter under local anesthesia. This patient showed no ill effect for several hours after the operation but then became very restless and died thirty-six hours later in attempting to get out of bed, apparently from acute dilatation of the heart. The third death that occurred was while the patient was recovering from the anesthetic. This patient, aged 32, operated on April, 1906, was born in the Bavarian Alps where goiter is exceedingly common. In November previous to this operation, while she was under an anesthetic to have an infected finger treated, it was noticed that she had an immense goiter. Her attention had never been attracted to it, since, as she stated, she supposed all women's necks were like her own. At that time there were no symptoms of Graves's disease and the girl seemed in perfect health. Soon afterward she developed hot flushes, trembling of the hands, intense perspiration without any apparent cause, palpitation of the heart, especially when she was lying down, and great loss of weight, from 120 pounds to 88 pounds at the time of the operation. Physical condition: a small, thin woman with a goiter which was hard and slightly movable, being larger than a man's fist, on the left side; while there was a prominence in the middle and on the right side, each nearly as large as a hen's egg. There was a good deal of pulsation in the mass on the left side and the blood-vessels in the vicinity were distended. The right eyelids were further separated than the left, on account of the right eyeball protruding.

The pulse was only 100 on the day of the operation though it had previously been as high as 140.

Operation April 11, 1906, through a collar incision. The large left lobe of the gland was removed. There was no hemorrhage and it took only twenty minutes to complete. Suddenly a sound in the chest was heard as though blood was escaping from the heart or one of the large vessels. The patient quickly became blue. The heart, which had been rapid, slowed to seventy-two, the beats became intermittent, and she died. A tube was inserted in the trachea and all sorts of stimulants used but of no avail. No post mortem could be obtained.

Postal cards were sent a few weeks ago to find out the present condition of those patients that left the hospital relieved or improved. Three of these patients could not be located, or sent no replies. All of the others, with the exception of two, write that they are feeling fine and have had no recurrence. One of these two not entirely relieved has had no recurrence of the general symptoms, but has a slight enlargement of the opposite lobe, only one having been removed at the operation. The other patient not entirely relieved writes: "Can say I am improved but not cured. For the last two weeks I notice a certain pressure again, especially when I lie down; the bulging at the throat seems to increase somewhat." This patient is 48 years old, a teacher by occupation, had noticed as a child a swelling in the neck. She was always nervous, and to some extent had the other symptoms of exophthalmic goiter. She had noticed also that the eyes bulged at times. All three lobes of the thyroid gland were affected, but principally the right, which was larger than the largest orange. Operated on July 10, 1908. The right lobe and isthmus were removed completely, exposing the wall of the trachea. The goiter was out in twenty minutes. Sitting up on July 13 and feeling perfect.

Case 1.—Mrs. L., aged 70, operated May 1, 1909, writes that her throat healed satisfactorily and that she experiences no inconvenience now. This patient had for 30 years a goiter which had gradually grown to its present size. For a number of years she had noticed difficulty in breathing. The heart had been irregular, she had been extremely nervous and had all the symptoms of Graves's disease. There was pain all over the left side of the head and neck especially when lying down.

All three lobes were enlarged, the whole mass being nearly as large as a coconut. It was slightly more on the left side than on the right, displacing the vessels of the neck. Operation through a collar incision. The left and middle lobes were removed making a mass as large as two fists. This had to be shelled out from under the collar-bone for a distance of three inches. May 6 she sat up in bed breathing normally and no more pain in face and head. May 9, 1909, went home feeling well.

Case 2. The youngest case operated on was a boy 17 years of age, a carpenter by occupation. This boy

noticed a growth beginning on his neck about a year previous to the operation. Afterwards he became nervous and sweated a great deal at times. On slight exertion he became short of breath and was quite hoarse. All three lobes of the goiter were involved but especially the right. A fine tremor was present. His pulse averaged about 114, but no exophthalmos was present. Feb. 25, 1907, patient was put to bed and given atropin. March 2, removal of right lobe, isthmus and part of the left lobe was done, a general anesthetic being used. The patient had a good voice when he awoke and was feeling much better. On the following day the pulse went up to 150 and the temperature to 104. However, under the usual treatment, these subsided considerably and patient was feeling fine on the fourth day after the operation, and left the hospital on the sixth day feeling well. This patient replies within the last few days that the condition is all right and he is not troubled since the operation. His voice is still hoarse and he has some trouble in making himself understood in a noise.

Case 3. Mrs. W., age 44, housewife, operated on Feb. 5, 1907. Five years before the operation the patient noticed a growth in her neck which kept on increasing slowly and for two years the heart beat very rapidly. Her eyes were always prominent and of late she had become very short of breath. She was nervous from childhood but this also had become worse after the tumor appeared in her throat.

On examination the thyroid gland had a right lobe about the size of a man's fist, while the middle and left lobes were about the size of a walnut. A distinct bruit could be heard over the blood-vessels on the right side of the neck. Patient had a marked tremor, and pulse ran as high as 140 even when she was quiet. Feb. 1, 1907, the patient was put to bed, atropin treatment commenced and ice applied over the heart. After a few days of this treatment patient was got in very good condition, the pulse-rate being 100 and no more palpitation. On February 5 the usual incision was made over the goiter and the right lobe, as large as a man's fist, was removed. Eucaïn was used exclusively and the patient did not complain of pain a single time, although she was on the table one hour and ten minutes. A good deal of shock followed this operation and within twenty-four hours the pulse could not be counted. This alarming condition remained for nearly thirty-six hours, after which a decided improvement was observed, and the patient did very well until the ninth day after the operation when a considerable hemorrhage occurred from the wound. This was checked easily by a little pressure, after which the patient made an uneventful recovery, leaving the hospital in good condition four weeks after the operation. In reply to a postal card, this patient's husband says his wife feels entirely cured.

Case 5. Mr. L., aged 52 years, a salesman by occupation. For fourteen years this patient suffered with all the symptoms of exophthalmic goiter. The eyes bulged, marked tremor, diarrhea, pulse 136, difficulty in breathing, edema of one leg, and he had been sick enough at various times during these fourteen years to be confined to a hospital for weeks at a time. He had to wear a 24-inch collar, having a symmetrical enlargement of all three lobes of immense size, with prominent blood-vessels on both sides of the neck. Nov. 14, 1907, put on atropin and rest treatment with some improvement in his general condition.

Nov. 20, 1907, operated through a collar incision under local anesthesia. The immense middle lobe was removed. The operation was dry and was completed in an hour. Was sitting up and in good condition the next day. Drain and chips removed on the fourth day and patient sent home on the sixth day after the operation. He was then in fine condition,

breathing good, and even the exophthalmos and nervous symptoms much improved.

This patient died six weeks later from acute pneumonia.

Case 6. Mrs. J., operated on May 5, 1904, under general anesthesia. This was a border line case with the history of many things suggestive of Graves's disease, although at the time of operation her general health was pretty good, except shortness of breath when lying down. This was explained by the fact that her goiter when removed was the size of a man's two fists and was almost totally intrathoracic.

Case 7. Miss T., age 44, teacher. Noticed a goiter commencing two years before. Later, her eyes began to protrude and she became extremely nervous. She perspired easily and had palpitation of the heart. Pulse varied between 100 and 120. Right lobe was the size of a small orange; the middle lobe that of a walnut. The increased size of the right lobe pushed the middle lobe to the left of the middle line. Operation July 7, 1908. The right lobe was removed and a cyst shelled out of the middle lobe which constituted its increased size. The operation took twenty minutes. Drain and chips removed on July 10 and patient discharged the 13th well.

Case 8. Mrs. S., operated on Oct. 26, 1907. For twelve years she had noticed a tumor on the right side of the neck. During that time also she commenced to be troubled with sweats, palpitation of the heart, nervousness and other symptoms which she was unable to explain. These gradually increased but never became serious. A tumor the size of a hen's egg was felt on the right side. The trachea was crowded far out of line to the left. Swallowing and breathing were interfered with. Pulse 120 and a decided tremor present.

Oct. 26, 1907, operation through collar incision. The right half of the thyroid was removed, and although injections had been made, the operation was completed in half an hour. Was sitting up and perfectly normal the next day and went home on the seventh day after the operation. The patient writes that she considers herself cured. The heart palpitation has disappeared and she is feeling quite well.

Case 9. Miss J., aged 37. Operated July, 1908. This patient had been suffering for about a year with all the typical manifestations of exophthalmic goiter in a mild degree. The right lobe of the thyroid was as large as an orange and, constituting the most of the tumor, was removed. The wound had to be opened an hour later for hemorrhage which was a general oozing. No serious consequences attended this. Discharged two weeks after the operation perfectly well.

Case 10. Mrs. L., aged 39. This patient had been affected for 18 years, sometimes better, sometimes worse, but for the last three years had been quite sick and at the time of the operation in January, 1905, had marked exophthalmos. Pulse as high as 150 but varied greatly both in rapidity and tension. Pronounced tremor and a large symmetrical goiter. This patient had a sister in almost the same condition.

After one week in bed with atropin treatment and ice applied over the heart, pulse dropped to 80, tremor almost disappeared and general condition became good; however the exophthalmos and goiter did not change. Operated, January, 1905, when large right lobe was removed under eucaïn. There was no shock and patient was feeling good the next day. The rubber drain was taken out on the second day. Six days after the operation, patient was walking around and doing light work in the hospital kitchen and was able to thread needles, which was impossible for over a year. However, on the 30th of January, that is seventeen days after the removal of the goiter, patient had a return of all of the old symptoms, of moderate intens-

ity, and left the hospital in this condition six days later. This patient could not be located, hence we do not know her present condition.

Case 11.—Miss G., aged 33 years, a nurse. Operated November, 1907. Eleven years previous to operation this patient had noticed a goiter which kept on growing gradually. Later she had bulging of the eyes, sweats, diarrhea, nervousness and rapid heart. These improved under the usual treatment before the operation. The left side of the neck was occupied by a mass larger than the fist while the middle and left lobes were also enlarged, though not to the same extent.

Through a collar incision the left lobe was removed, the operation though very difficult was completed in forty minutes, under ether. Discharged ten days later feeling much improved. Is now enjoying perfect health.

Case 12. Miss M., aged 41, teacher. Operation July, 1908. This patient had noticed a swelling in the neck for one year. She was nervous, had palpitation of the heart and diarrhea. She noticed that her eyes protruded slightly at times. The tumor was small, not being larger than a small orange and chiefly affected the right lobe.

Operated July 1, 1908, when the right lobe alone was removed in the customary manner. The goiter was out in seven minutes. Left hospital one week later. She is now in very good condition.

We took the liberty to report the above cases somewhat in detail on account of some interesting points presented by each.

In conclusion we would like to add that exophthalmos is not present in nearly all cases, at least in the early stages. A goodly number of our cases showed no protrusion of the eyeballs.

All cases of Graves's disease should be operated on early in the disease, that is before permanent pathologic changes have taken place in the vital organs of the body.

Those very chronic cases that cannot at all be improved, even temporarily, by rest and medicinal treatment, should keep well out of the surgeon's field of vision.

With modern surgical technic and those inoperable cases excluded, the mortality from partial thyroidectomy should be almost nil.

4257 Washington Boulevard, 3603 Lindell Boulevard.

SOME CONSIDERATIONS IN THE EXAMINATION OF CHILDREN *

H. S. MARSH, M.D.
TIPTON, MO.

A very large per cent. of our general practice is on children. We have in their treatment a distinct specialty and one to which we should give our most earnest consideration. But, sad to say, some general practitioners are too inclined to measure a child by the same standard which they apply to the adult. Though as a rule a student in medical school is taught that pediatrics is a distinct branch of medicine, he frequently forgets some of its main principles when he begins his professional career.

* Read by title in the Medical Section, Missouri State Medical Association, Hannibal, May, 1910.

How many of us have not felt that uncomfortable sensation of reluctance and embarrassment when brought face to face with a screaming infant and called on by the fond and over-anxious parents to diagnose its ailment quickly and to relieve it quickly, too? I have heard physicians say (and they are good and useful men) that it is not justifiable to bestow much medical attention on an infant, that it is impossible to examine it carefully, or get results from doing so. Hence very often the baby is turned over bodily to the all-wise and infallible nurse or grandmother, who diagnoses its ailment from among a select list of wonderfully named diseases. In this manner does the fame of laxatives and soothing syrups spread over the world and the doctor is discredited. But the child is as much our charge as the adult and it behooves us all to become specialists to the extent of being able to cope with its numerous ailments.

In addition to the general routine of physical examination the intelligent study of childhood diseases depends on a knowledge of several important differences which the child presents from the adult. In the first place, we have no subjective history. However little or great this aid may be in adults, it is totally lacking in infants and children and its absence makes it doubly important that the physician correctly interpret the objective symptoms and physical signs. Dr. West says, "you cannot question your patient, or if he be old enough to speak, still, through fear or from comprehending you but imperfectly, he will probably give you an incorrect reply. You try to gather information from the expression of his countenance, but the child is fretful and will not bear to be looked at. You endeavor to feel his pulse, he struggles in alarm; you try to auscultate his chest and he breaks into a violent fit of crying." This is an apt expression of what the physician meets in his practice among children. Here is where an acuteness of the faculty of observation is needed most and where the physician must exercise his greatest skill in eliciting the signs of physical examination.

Among objective symptoms in children there is absent the distinct chills and rigors which usually usher in acute infections in adults. Among children whose nervous organization is far more susceptible to irritating influences, we may look for convulsions or delirium instead. The tongue, which we have come to look on as a more or less certain index of internal conditions, particularly of the alimentary tract, is unreliable as a diagnostic sign in children and should not be overrated as such. The temperature of infants varies from 99 to 100 F. In determining this condition we should remember that the rectal temperature is the only reliable one and that we cannot depend on the temperature alone as expressing the virulence of infection as we may in adults, because hyperexia is as commonly seen in trivial

ailments as in severe ones and, on the other hand, a septic diphtheria may be accompanied by a low grade fever. I will mention, too, that fermentation in the bowel and hardened or impacted fecal masses will increase considerably the thermometer reading.

Expectoration is absent in infants and we may look for children to swallow their sputum until they are quite large.

The pulse-rate at birth is usually from 140 to 160 and diminishes gradually with age. At 2 years it is about 95 or 100.

Respiration varies between 24 and 36 times per minute. The ratio of pulse and respiration is as important in its clinical significance as in adults.

Intestinal disturbances, such as vomiting and diarrhea, are of far less grave import in children than in adults. This is owing to the radically different shapes of the stomach and intestinal canal. The flexures of the infant's bowel are less developed and the shape of the stomach such that it will disgorge its contents on trifling interference. These differences together with the normal greater peristaltic action of the infant's bowel account for the ease with which vomiting and diarrhea occur in children.

In addition to these differences I will add the aphorisms of Bouchut, as given by Fischer:

1. In early childhood there is no relation between the intensity of the symptoms and the material lesion. The most intense fever, with restlessness, cries and spasmodic movements, may disappear in twenty-four hours.

2. Abundant perspiration is not observed in very young children: it is entirely replaced by moisture.

3. Fever always presents considerable remissions in the acute diseases of young children.

4. In the chronic diseases of infancy, fever is almost always intermittent.

5. When children are asleep their pulse diminishes from fifteen to twenty beats. The muscular movements which accompany cough, crying, agitation, etc., raise the pulse fifteen, thirty or even forty pulsations.

6. The diseases of youth always retard the progress of growth.

In beginning the examination of a sick child, it is just as important to inquire into the history as in adults. We should endeavor then, first, to determine the exact date of onset, previous history, initial symptoms, etc. As much as possible should be learned before touching the patient. A great fund of clinical information may be gained by simply watching the sleeping child. Posture in bed, the character of the respiration and condition of the skin are important. The color of the face and lips, whether cyanotic, flushed or pale, and whether the perspiration is general or only from the face or forehead. Very often a simple observation of these factors

makes the diagnosis easy. A careful comparison of pulse and temperature with attention to accompanying symptoms is of importance. For example we find the child with a dry, hot skin, furred tongue, temperature of 103 or 104 F. and pulse 140. There has been a sudden onset with vomiting and the child has refused to eat. We at once suspect the common attack of acute gastric fever or some other form of indigestion. On the other hand, if we find an infant with a cold, clammy skin, bathed in moisture, with a low temperature and a low pulse, say seventy-five or eighty, we may suspect some chronic infection of a constitutional nature, such as tuberculosis, etc.

The character of the respiration is a great aid in diagnosing disease. It is easy to differentiate between the sharp cries and prolonged respiratory grunt of intestinal colic and the smothered or sobbing respiration of acute lung disease such as pneumonia or pleurisy. In examination of the chest always auscultate before using percussion. The normal vesicular murmur is harsher in children than in adults and constitutes the so-called puerile breathing. Aside from this fact there are no material differences in the breathing sounds obtained by auscultating the chest. It has been pointed out by several authorities that in children there is a normal dulness in the right lung area posteriorly on account of the relatively higher position of the abdominal viscera in general and of the liver in particular. There should be no recession or retraction of the thoracic wall in health; such being present, indicates an impediment to the entrance of air into the lungs. In such cases the expression is usually characteristic of impending suffocation and the child grasps at its throat.

In the diagnosis of intestinal complaints the character of the stool is important. The soft, pasty, yellow feces of the milk-fed baby is known to us all, and departures from this, the presence of quantities of mucus, blood, change of color, or strong odor are all significant of abnormal states.

No examination of a child is complete without a thorough inspection of the throat and nose. If there is any one point it is folly to neglect, it is this, and I wish especially to emphasize it. How many thousands of children are to-day growing into defective manhood and womanhood on account of malformed and obstructed nasal chambers and diseased throats. Tonsillitis is a very common disease of childhood, yet it is frequently overlooked. Often a parent will inform the doctor that the baby has had a very high fever, is fretful and has refused to nurse, and ascribe the cause to teething. Close examination in many cases will reveal an acute tonsillar inflammation. Teething *per se* should not and usually does not produce troublesome symptoms. But in all cases the gums and teeth should be examined as a preliminary to closer inspection

of the throat. The fact that several acute infections of childhood have their principal manifestation in the mouth and throat makes it imperative to examine these structures early and often. The earliest sign of measles can be detected by this method and it is certainly worth the trouble. The Koplik sign is seen as a small purplish or bluish red macule on the buccal mucous membrane. It should not be difficult to recognize as it does not resemble the other forms of stomatitis. Diphtheria, which is so insidious in its onset, can only be detected by reference to the throat, and the possibility of this disease existing as an intercurrent infection is alone an absolute command that we ever be on our guard for it.

The victim of adenoids is a frequent and lamentable acquisition to our practice. Every day we see the hatchet-faced child with his dull, stupid expression, flabby cheeks and dependent lips. Frequently also there come under our notice adult patients who present an elongated facial contour, prominent incisor teeth and narrow, high arched palates. All these denote a long-continued interference with proper breathing during childhood, and the primary cause may be laid to vegetations in the post-pharynx. It is not right for us as physicians to overlook or neglect the diagnosis of adenoids in children. We ought to recognize this malcondition and remedy it or have it remedied by the specialist. It is a matter of common knowledge that adenoids not only produce serious physical defects and make the victims more susceptible to disease but also stunt the mental development of the child.

The eyes are often significant in a clinical way. Large pupils are the rule in children and are to be considered normal, unless insensible to light. In sleep the pupils are usually small, and we must remember that they naturally turn up under the lids during sleep. Contracted pupils are sometimes indicative of cerebral disease and are seen as a cardinal sign in opium poisoning. Inequality of the pupil in acute fevers is a grave sign as a rule. Occasionally this may denote irritation due to intestinal worms. The presence of a squint is nearly always indicative of a paralysis.

On account of the intimate relation of certain nerve filaments innervating the ear which lie in close proximity to the teeth, very often a reflex earache is set up during the teething period. Even later when the child is older earache may be relieved by discovery of the irritating cause in the teeth or gums.

In concluding I will mention one more point which is in my opinion only second in importance to examination of the throat, and that is examination of the genitals and rectum. Very often an inflammatory trouble of the genitals or anus, such as a phimosis, pruritus ani, etc., will produce symptoms of the greatest nervous irritation. I recall one case in my own practice

recently in which a child 13 months old was brought to me. It had been treated for epilepsy and was having seizures closely simulating the grand mal. On examination I found a highly inflamed glans penis with a long constricted and adherent prepuce so that the urethral outlet was nearly occluded. After circumcision there were only two or three more epileptiform seizures, after which the puny and delicate child rapidly grew fatter and better.

In conclusion I wish to say that these remarks are not intended to cover the whole field of this exhaustive subject but have been confined to a few simple facts and suggestions which are of a practical nature. As a general practitioner I make a plea for the more intelligent and conscientious study of the child by our profession.

DEDICATION OF THE BARNARD FREE SKIN AND CANCER HOSPITAL, ST. LOUIS

Address by W. E. Fischel, M.D.

Chairman Medical Staff

Mr. President, Ladies and Gentlemen:—I am sure this assemblage greatly regrets the inability of Dr. Simon Flexner to be present on this occasion. The address he promised to deliver to us has been looked forward to with eager anticipation by those of us who knew of his coming and know the greatness and the charm of the man. Dr. Flexner expressed himself as glad to accept the invitation of the board of directors of the Barnard Free Skin and Cancer Hospital, because he appreciates the work that this institution stands for. It is not my intention to praise, it would have been well for you all to know him. Sincerely as we regret his absence, we rejoice that health and with it unbounded usefulness are soon again to be his.

Mr. President:—For the privilege which your board has extended to me as chairman of your medical staff, of addressing our friends on this memorable occasion, please accept my thanks. Perhaps it is fitting that the honor of addressing the friends and patrons of this institution should fall to a member of the medical staff; only your choice might well have been directed to a more worthy and a wiser man, and of such I assure you in all honesty, there are many actively engaged in the work of your hospital.

I desire, here and now, to felicitate you, Mr. Huttig, and through you the board of directors and the board of lady managers, on the success which has crowned the beneficent work you have called into existence. Modestly conceived, you have, by untiring and well directed effort and by the force of your example, not alone maintained a hospital for the care and treatment of those afflicted with cancer; but you have generously

supplemented that achievement by providing this hospital with the most modern and scientific appointments; thereby assuring to your patients all that is best in the way of attention, giving them the benefit of every possible chance whether for a permanent cure or for temporary relief, and alleviating to the utmost the dreadful suffering incident to the later stages of the disease in incurable cases. Truly there can be no higher philanthropy than caring for the dependent sick whose malady is of such a nature that they are unwelcome charges in all general hospitals. And to your credit and to that of all the generous donors to this hospital be it said, you have from the start not only made it possible to give priceless succor to the afflicted, but you have made their environment attractive to a degree beyond all expectation.

In their first conferences looking to the creation of this charity, the few friends who met with that purpose in mind hardly hoped to be able to extend its usefulness, at first, beyond a possible provision of ten or twelve beds. Even this would have compared well with existing institutions of this character abroad and east of the Alleghanies, institutions now grown to splendid proportions.

In my first annual report I stated that, regarding the year's work as having measurably demonstrated the wisdom of your inspiration to establish a hospital for the relief of a special class of sufferers not adequately provided for in existing institutions, your medical staff, supported by the medical profession of the entire Mississippi Valley and by the citizens of this metropolis, hoped to assist you in creating a sentiment in behalf of this institution which should enable you in the near future to take just pride in it. The seed you had planted would be watered and nurtured with assured promise of growth to fair proportions. The gardeners would be the people and the growth would represent the out-pouring of generous and warm-hearted sympathy.

In my second annual report I congratulated the board of directors and the friends of the institution whom they represent, that their hospital, the child of their conception, had in a little over two years from its birth not alone safely passed the period of its first dentition, but had gained a foothold among its elders and had begun to talk. Young as it was it had won the kind of recognition which, in the expressed hope for it in its earliest days, had been earnestly dwelt on. We knew when our constitution was drafted and the charter establishing the St. Louis Skin and Cancer Hospital was granted, that if individual service rendered to the inmates of the hospital should alone represent its work, our institution could hope at the best to attain to only limited recognition. A pathological and research department, with Dr. Guthrie McConnell as its chief, was made from the beginning an integral

feature of the hospital. When the history of cancer hospitals in this country shall be written, St. Louis may well be proud of the distinction that its citizens were the first to create a well-rounded organization for clinical and experimental research. And thus it was that at the end of the second year of its organization the scientific opportunities of the medical and surgical staff had borne fruit sufficient to place the St. Louis Skin and Cancer Hospital in the front rank with the best institutions of its kind. That so early in its existence its work came to be mentioned in the same breath with that of the Rockefeller Institute, of the Buffalo Laboratories, and of the scientific research departments of Harvard and Cornell Universities, must satisfy the patrons of this institution that the seed which its founders planted had early taken root with the promise of continuing healthy growth. And there has been no disappointment in this growth. The progressively enlarged scope of the work may be read in the third and fourth annual reports of its officers. In the early history of most institutions there come periods of discouragement; either the work accomplished has not come up to what was expected, or there is an uncertainty as to its material and financial support—a contingency demoralizing alike in the life of an institution as of an individual. The St. Louis Skin and Cancer Hospital has been singularly free from such depressing influences.

Speaking for the members of the medical staff, we well realize our limitations. Their work doubtless might have been better done, but whatever skill each possessed has been given with genuine devotion to the cause for which all alike stand. And I wish here to make grateful acknowledgment for the good work done by all the friends of this hospital, who have given freely of their time, and energy, and wisdom, and money, to make it possible for every member of the staff to utilize his best powers without fear of restraint and with full assurance of generous support.

Ladies and gentlemen, the experimental period of the life of the St. Louis Skin and Cancer Hospital has been passed. Any doubt which our friends, and those also who have not always been friendly, may have entertained as to the usefulness of the institution must have been long ago set at rest. The building which we are about to leave has for the past two years proved inadequate as regards room both for our patients and for laboratory installations. It has been found necessary to make provision for an ever increasing number of patients by the use of cots distributed over parts of the building reserved primarily for the out-patient department. Disturbing as this proved in the administrative work of the hospital, we did not feel justified in turning away patients in need of immediate attention. Perhaps it was this over-crowded condition of the

hospital that inspired the generous act of the large-hearted, human, and humane man from whom the president of this association has accepted the keys of this new hospital building.

Mr. George D. Barnard:—To your munificence we are indebted for the home which in your name we dedicate to a noble philanthropy. Its architectural dignity, its spaciousness, and its superb equipment, bear witness to your lofty ideal of liberal and attractive provision for the afflicted, supplemented by the largest facilities for the prosecution of beneficent scientific research. In recognition of your broad-minded generosity, this hospital will henceforth be known as the Barnard Free Skin and Cancer Hospital. Your name is wedded to the institution for all time and I make bold to prophesy that this generation and generations to follow will grow old in their appreciation and support of the Barnard Free Skin and Cancer Hospital. How thrilling is the sense of ownership! And who is there of those who have shown abiding faith in the good work done and to be done who will not award grateful acknowledgment to you for this hospital home? A temple consecrated to humanity. A true hospitium for the afflicted. And it will also stand for a world-wide movement in promotion of research looking to the investigation of unsolved medical problems. This work we promise, under the directing genius of Dr. Leo Loeb, shall be aggressive, and we trust, also effective.

It is only within a relatively short time that the public conscience has awakened to the fact that self interest requires methodical study of individual diseases, of their causation, and of the means for their prevention. Hospitals for the treatment of those already afflicted with a disease are necessary, and have always been provided for in a liberal spirit. Institutions for the prevention of disease are of modern creation. Prevention of disease is one of the principal functions of the great foundations for medical research that have come into existence in all civilized countries, largely within the last two decades. To the laity their achievements are not so much in evidence as are the benefits of hospital treatment to the individual sufferer; but we must remember that every forward step in investigation, every new discovery, is a definite contribution to rational medicine and as such may become a means of succor to thousands or even millions. In medicine, as in other departments of applied science, it is impossible to forecast the outcome of investigations seemingly of only theoretical interest. The production, by Faraday, of a tiny spark from a coil of wire moved through the field of a magnet, proved to be the germ from which the commercial transformation of mechanical into electrical energy has been developed in its vast and ever expanding application. Wireless telegraphy is a direct result of experimental work done by Maxwell and Hertz without reference

to practical ends. The scientific discussion of the problem of aviation, by Langley, opened a way to the conquest of the air by the brothers Wright. When the Panama Canal is finished it will be not alone a triumph of engineering skill backed by an expenditure of hundreds of millions, but in at least equal measure it will be a monument to the untiring scientific devotion of Dr. Gorgas who, by creating wholesome sanitary conditions in a notoriously deadly climate, made it possible for the work to be accomplished. The work of the chemist, of the botanist, of the zoologist and of the physiologist prepares the way for the pathologist and the therapist. The cultivation of scientific research may mean a certain self-abnegation, alike on the part of those who provide the necessary funds and of those who devote their time to its prosecution. The practical and therefore more readily appreciated results may follow only after a long interval; but the more solid the theoretical foundation which we construct, the more certain can we be that the ultimate value of the work will be far-reaching. Newly discovered facts fall into line with facts already known; an apparently insignificant observation has often led to the most important consequences; an idea originating in one laboratory is taken up in another laboratory, and yields or may yield rich returns. It is therefore necessary that the greatest freedom be accorded in the prosecution of research. The master investigator is the best judge both of the relative importance of the problems which lie before him and of the means best adapted to their solution; uninformed criticism can only chill his ardor, and lessen the value of his work. We know that intelligent research carried on in the right spirit has already borne rich fruit in the reconstruction of our knowledge of acute infectious diseases and of tuberculosis. To the cultivation of bacteriology, a late offshoot of botany, we owe this incalculable debt—a striking illustration of close interrelation in science. Investigators in all civilized countries have lately begun to attack cancer, a disease second only in importance to tuberculosis. The reason for this awakened interest must be sought for in recent statistical studies showing the great prevalence of cancer, and especially in the discovery of new lines of investigation. The sum of evidence points to-day to the opinion that cancer is steadily increasing in frequency both in man and in domestic animals, and probably at a progressively increasing rate. It may interest those who are not already acquainted with the facts to know that, although relatively more frequent in man, the statistics of Frohner and others show that “from 5 to 8 per cent. of sick dogs suffer from cancer; that the mortality from tumors in pet dogs is surprisingly high; and that it is probable that in the later periods of canine existence these afflictions are even more common than in the corresponding years of

human life.” Sanitary science, which has proved so potent in controlling infectious diseases, exercises no such power over cancer. Within the last ten years the study of the disease in the lower animals, principally in white rats and mice, has been undertaken on a large scale; and we have gained much knowledge of great importance and sometimes of a quite unexpected character. The possibility of access to some of the hitherto hidden secrets we owe to the introduction of experimental methods in the study of cancer in animals. A new era in cancer research was opened when it was shown by Jensen and Leo Loeb, in 1901, that it is possible to transplant cancer and sarcoma (a typically malignant growth) of white mice and rats into other individuals of the same species. Here was at last a method of producing cancer artificially in the lower animals, thereby making it possible to utilize strictly scientific methods in the study of its incipient as well as of its advanced stages.—Some of the best work done in this direction was accomplished by our Dr. Leo Loeb in his experimental and comparative study of tumor growth. He was probably the first to undertake systematically and on a large scale the biologic study of tumors. I wish to emphasize the importance of securing for our research department the voluntary assistance of members of the veterinary profession and of the board of agriculture. In horses, swine and cattle, tumors are less frequent than in man and perhaps also than in dogs, but particular forms of cancer, such as melanoma in the horse and cancer of the eyelids in cattle, are relatively common. These tumors should be examined as a help to broader comparative studies.

I have already extended my congratulations to the people of St. Louis as having been the first to establish a well-rounded organization for clinical and experimental cancer research. And it holds true to-day that we have so far perfected that organization that we can point with just pride to the fact that our institution continues the first of its kind in this country, and that it is as well equipped both in its clinical and in its research facilities as any similar institution abroad. Having its hospital and its research departments under one roof; a recognized leader in experimental work with well trained associates; and may I not add in parenthesis, distinguished surgeons with high scientific ideals in charge of the operative work, and a community ready and anxious to give moral and material encouragement; is it too much to say that the time must come when important truths tending to the elucidation of the causation and treatment of cancer will emanate from this institution?

The search after new facts is constantly stimulated by the rejection of fallacies which tend to obscure the real problems. For instance, we know that cancer is not transferable by ordinary contact from one individual to another; neither

has it been established that cancer is a hereditary disease. The Imperial Cancer Research Fund, which has at its disposal the largest working capital and which by reason of the vast extension of the British Empire through its imperial and colonial possessions is in a most favorable position for world-wide observation, has added much to our knowledge of cancer. Among the various races and castes of the empire, differing so widely in customs, ways of living and diet, cancer has been shown to be a universal scourge. It is no respecter of races or of social standards. Neither are the meat eaters more prone to cancer than the vegetarians; nor does any one article of food appear to predispose to the disease. Facts which all peoples must face are the wide prevalence of cancer and the supreme importance of its early recognition. Many reputed remedies for cancer have been brought to the attention of the staff of this hospital as of other similar institutions. Unfortunately their supposed value, as proclaimed by those who believe in them, rests on the erroneous designation as "cancer" of diseases which are not malignant growths. The era of "cure" will come, if at all, only after the discovery of the cause. At present early and complete removal of cancer affords the only chance for complete recovery. It is because of this fact that the public needs to be enlightened; even an apparently insignificant tumor wherever situated should be promptly investigated by a competent physician who alone is in a position either to allay the anxiety of the patient or to urge timely and effective treatment.

There are few of those whom it is my privilege to address who have not had brought home to them the terrors of this fatal, mysterious disease; and does it not behoove us, in the interest of humanity, to assist to the utmost of our ability those who have labored so faithfully and so efficiently in the organization and maintenance of research, in a field in which exploitation by modern scientific methods promises a rich harvest of knowledge in elucidation of hitherto unsolved human problems? Let us remember that only a generous endowment can give that feeling of security which is so essential for the production of mature work. President Eliot has said "the first step toward maintaining an endowment is to deserve one." I know the Barnard Free Skin and Cancer Hospital has by faithful and wise stewardship demonstrated its fitness to administer the amplest endowment.

I wish it might be in me to pay an adequate tribute to the president and directors and to the executive committee of the ladies auxiliary board, one and all, for their active and sympathetic interest in everything that pertains to the success of this hospital and the well-being of its patients. To their indefatigable labors and merciful consideration of the comfort of the afflicted in the wards of the hospital much of the good that has

been accomplished is due.—To our nurses under the intelligent guidance of our superintendent, Miss Gallagher, and of her predecessor, Mrs. Carew, who in the most trying contingencies have been steadfast in their office, we all make unstinted acknowledgment. Their untiring zeal in the performance of their work will ever earn for them the respect and affection of suffering human kind; not alone efficient in their ministrations, their whole thought would almost seem to be "how to make glad one lowly human heart."

It seems to me to be particularly appropriate on this occasion, at this season when every heart fairly effervesces with generous impulses, to quote a few sentences from a sermon preached in aid of the London Cancer Hospital by the late Dr. Temple, Archbishop of Canterbury: "Giving what is due to charity shows faith; so also does it to suffer affliction; it shows our faith to employ our substance in complying with the will of God, which demands the sacrifice of part of our means, and passes for something beyond the present world. Whoever has in this world good things and pays no regard to him who has little does not fulfil the commandment of God. . . . The special hospital for which we all plead to-day is dedicated to a malady of a most fearful character; but I would not distress your feelings for one moment by describing the sufferings from the first symptoms of its attack to its close, yet I could wish that the greatness of those sufferings should be more apparent. I feel none could resist doing something to mitigate that misery; for we know that such misery does exist, as surely as if we saw it with our eyes.

. . . The institution has been established but a few years, and great is the good it has already conferred. Much more, it is hoped, may be done by it for suffering humanity. The Master went about doing good. . . . God is pleased to see the exercise of faith in the practice of charity."

Ladies and gentlemen, I wish it were in my power to preach a sermon of my own, so good, so true, so full of charity and religion, as this sermon in aid of the London Skin and Cancer Hospital; but you will at least let me express the hope that the words of the Archbishop of Canterbury may carry weight with those who have been and those who shall hereafter be interested in the good work of the Barnard Free Skin and Cancer Hospital.

Address by C. H. Huttig, Esq.

Chairman, Board of Directors

It affords me great pleasure, on behalf of the board of directors, to accept the keys of this hospital from you, Mr. Barnard, and in so doing to emphasize the promise made to you when your

kindness of heart and liberality prompted you to give us sufficient money to buy this site and erect this handsome building with its modern, up-to-date equipment. That promise was that the board of directors would use its best efforts to secure the necessary funds to defray the operating expenses of the hospital, and we are now glad to give you the assurance that we feel this hospital will be maintained on a basis compatible with the structure itself.

We have now ascertained that the probable operating expenses of the hospital will be \$30,000 a year, to take care of which we have an endowment fund of \$200,000, which we hope eventually to build up to \$500,000. Besides the endowment, we have other sources of revenue in the way of donations and contributions, but not in sufficient quantity to enable us to make full use of the facilities so generously given us by Mr. Barnard.

The field of usefulness of this hospital will increase in proportion as its resources increase. In this connection let me express the great appreciation of the officers and directors to those who have already so generously contributed, and we sincerely hope each and every one of you will take a deep interest in this hospital and its progress.

We look back and realize that only five years ago this project was brought into being. It had all the possibilities of any child for growth and development under the right influences. Constant and intelligent care, able and distinguished service, rendered jointly by the board of directors and the medical board, aided by the woman's auxiliary, the superintendent and her staff of nurses, have brought about a result of which we may all feel justly proud.

As I stand before you to-day in this new home of the hospital which represents, with its increased space and facilities, additional opportunity for the alleviation of human suffering, various emotions surge through my mind; but uppermost among them is the gratitude I feel toward that large-hearted man who has by the magic touch of his generosity made it possible to serve humanity in greater proportion and degree than even the most sanguine of us had imagined at the conception of this hospital organization; and combined with the gratitude is joy at what has thus far been accomplished by the faithful and self-sacrificing associates who have helped to make this dedicatory service possible.

Mr. Barnard's magnificent gift answers emphatically in the affirmative the question which has been handed down to us through the centuries: "Am I my brother's keeper?" You have, Mr. Barnard, achieved great success as a man of business and have become an important factor in civic affairs, yet I wish to say to you that the reputation thus gained will have passed into oblivion

many years before the recollection of this noble deed fades from the memory of man.

It is our ardent hope and belief that the results of the research work done in this hospital will be of such helpful and important character in the solution of the problem for which it was organized, as will commemorate The Barnard Free Skin and Cancer Hospital through future generations.

And so we accept this building and its equipment on behalf of The Barnard Free Skin and Cancer Hospital Association, sincerely trusting and believing it will prove a blessing to humanity, and stand as a monument to you, Mr. Barnard, and to its founders and supporters through all time.

"Conceived in the great heart of a man who saw the need
Born under the influences that only tender hearted woman can give—
Nurtured by the best thought of those whose time is without price—
And brought to fruition by one whose desire was to serve the Lord."

Report of the Building Committee

MR. PRESIDENT:—The building committee desires to submit a brief summary of its doings for the past two years and a half, and to make this the committee's final report.

On June 15, 1908, you appointed a building committee consisting of Mr. B. J. Taussig, chairman, Mr. John Fowler, Mr. John Lawrence Mauran, Mrs. Kotany, Mrs. Hammer, Dr. Fischel, Dr. Engman, Dr. Mudd and Mr. George D. Barnard.

On Oct. 9, 1908, at a meeting of the building committee, Messrs. Mauran, Garden and Russell were appointed architects and requested to make plans for the hospital building and submit the same.

On Nov. 9, 1908, Mr. B. J. Taussig, having been elected by the people of our city to the office of city comptroller, and finding his official duties admitted of his having but very little time to look after the hospital building, resigned his office as chairman and from the building committee, and you, as president, appointed in his stead Mr. George D. Barnard.

Oct. 27, 1908, at a meeting of the committee, a sub-committee, consisting of Dr. Engman and Mr. John Lawrence Mauran, was appointed to visit the cities of Chicago, Buffalo, New York, Boston, Philadelphia, Baltimore and Washington for the purpose of making an investigation of hospital buildings. This committee gained much useful knowledge, in fact did its work thoroughly. During the fall of 1908-09, several conferences were held with the architects, and a number of

floor plans presented were examined and discussed.

On Dec. 30, 1908, the deed for the ground, on which this building now stands, was received from Mr. Barnard, and placed on record.

On April 19, 1909, the plans and specifications presented by the architects were accepted, being the same that have been carried out in the building now completed. The committee have received many commendations for the architects for the admirable arrangements of and for their thoughtfulness in providing all conveniences needed. It has been said by those who should know that the architects have given us a building complete and modern in all its appointments and expressly adapted to the needs of this hospital.

On July 21, 1909, bids having been received and canvassed, a contract was made and entered into with the Edward A. Ward Construction Company, who have rendered good and faithful service, and the committee believes that the hospital is a substantial and well constructed building. It is an absolute fire-proof building, no wood being used in its construction, or about the building, except in the window frames and sash, and in some of the fixtures in some of the rooms. The outer walls are of brick, the inside walls or partitions of tile, the floors and all columns and beams of reinforced concrete, the doors and frames all of steel; but with all this precaution, the committee had two large fire escapes built on the rear outside walls.

On Dec. 10, 1910, at 3:00 p. m., the building committee met at the building and made a thorough inspection of same, and accepted it from the contractors with the reservation that the Hospital Society would hold the contractors responsible for some of the guarantees made by some of the sub-contractors, and for any defects, if any should later show up.

The amount paid for the ground was \$26,500, and for the building and its equipment \$135,597.69, or a total for the ground, building and equipment of \$162,097.69, all of which the treasurer has paid, or has the money on hand to pay; all out of the fund given by Mr. George D. Barnard, leaving a little more than \$5,000 to transfer to the maintenance fund.

To-day in the presence of this assemblage, I, as chairman of and in behalf of the building committee, do give unto you the keys of the building, and with these, Sir, goes out to you and the officials of the hospital the best wishes of each member of the committee that all the good you and the friends of the hospital have hoped to come to humanity through this hospital may be more than realized; and now respectfully ask that at the next regular meeting of the board of directors, you recommend that the committee be discharged from further service.

(Signed) GEORGE D. BARNARD,
Chairman, Building Committee.

A STATEMENT CONCERNING THE "OPTOMETRY BILL" AND "OPTOMETRISTS"

Prepared by the Committee on Optometry Legislation
of the St. Louis Medical Society

The so-called optometry bill, House Bill No. 93, which aims to license individuals without medical training to test eyes for glasses, has just been introduced in the General Assembly of the State Legislature. An examination of the contents of this bill reveals the fact that it differs in no essential feature from similarly designated bills introduced at former meetings of the legislature. It is greatly to the credit of our Missouri lawmakers that hitherto this bill has failed of passage. We earnestly hope that the same intelligent regard for the welfare of our people's eyesight which has animated the members of former legislatures will again lead to the defeat of this measure.

It is important at this time when petitions in favor of optometry legislation are being circulated by opticians among physicians, to point out some of the serious dangers of this vicious legislation. When opticians first applied to state legislatures for regulation, the medical profession paid little attention, considering it a move to regulate a trade. Practically unopposed, or opposed by ophthalmologists only, this bill was enacted into law in twenty-four states. Emboldened by success, the opticians in these states began to style themselves "Optometrists" and their trade a "profession," and the "Optometry Boards of Examiners" assumed the right to ask medical questions. A recent circular issued by an optician makes the following statement:

"We are to-day approved and accepted as standards by special optometry laws in twenty-four states *which now recognize the practice of optometry equally with the practice of medicine.*" (Italics ours.)

Here, then, is the meat of the whole question. Under the protection of optometry laws, a countless number of opticians have suddenly blossomed into "Doctors of Optometry," have opened "offices" for the practice of their "profession," have issued learned (?) disquisitions on the anatomy, physiology and pathology of the eye and in short, have done everything possible to delude the public into the belief that they are, in reality, practitioners of medicine specially qualified to remedy defective eyesight. Wholly devoid of medical knowledge, they have the marvelous effrontery to undertake the care of ailing eyes; for many eyes that need glasses are unhealthy eyes, and require medical treatment in addition to the correction of the refractive error.

Nor does this precious "Doctor" confine his activities to the testing of eyes for glasses. Glance at many of the optical journals and you will find prescriptions for eye-drops and full directions for the treatment of conjunctivitis, keratitis, glaucoma, etc. The still more attrac-

tive field of ophthalmic surgery is now beckoning to our quondam lens-grinders and we may well suspect that some of the more venturesome have already entered its sacred portals.

This is what has happened: through the gates of optometry laws, thousands of tradesmen, jewelers, lens-grinders, grocery clerks, sewing machine agents, etc., wholly without medical training have entered the field of medicine and are "practicing" without let or hindrance. It is too easy! A three to six weeks' course in one of the many "optical colleges," and the graduate emerges with a diploma conferring the title of "Doctor of Optics," or "Doctor of Optometry." He rents an office, puts out his sign, "Doctor ——— Glasses Scientifically Adjusted," and begins his personal publicity campaign. Unhampered by ethical considerations which bind the members of the *real* medical profession, he is able to exploit himself to the best advantage. The people are attracted, see that a new "specialist" has come on the scene, and, wholly unable to discriminate between the six-weeks' "doctor" and the six-years' doctor, forthwith proceed to entrust their most precious organs, the eyes, to the former's unskilled manipulations.

Physicians should not be misled by the clause in the bill prohibiting the optometrist from using the prefix "doctor" to his name. That omission will not in any wise prevent the use of any and all kinds of suffixes and titles after the name. These near-doctors would still be "X. Y. Z., O.D." (doctor of optometry, doctor of ophthalmology), or "X. Y. Z., O. D." (ophthalmology doctor), or any other high-sounding title the so-called optometry colleges please to announce.

The proper fitting of glasses is a difficult art, only mastered after several years' constant practice, demands in practically all patients under thirty-five years the use of "drops" (atropin, etc.), and presupposes an examination with the ophthalmoscope to determine the condition of the eye-grounds. None but legally registered physicians may prescribe drugs; therefore, the optometry bill specifically states that the testing shall be made without drugs; thus legalizing a method of testing which in the majority of patients under thirty-five years of age, cannot determine an accurate measure of the refraction; in other words, would legalize incompetent methods and incompetent examiners.

Many opticians will declare that they have learned to see the eye-ground with the ophthalmoscope. This may be true, but let us not forget the vast difference between seeing and interpreting what is seen. A medical training, to which is added a prolonged course in ophthalmoscopy, is indispensable to one who would correctly interpret many conditions in the eye-ground giving rise to defective vision.

The indifference on the part of the rank and file of the medical profession to optometry legislation can be accounted for on two grounds: First, the assumption that the matter concerned solely the ophthalmologists and hence should be opposed by them; second, ignorance of the effect of this legislation in permitting the invasion into medical practice of non-medical tradesmen. It is painful to record that this ignorance has led some physicians to affix their signatures to petitions advocating this iniquitous legislation. When ophthalmologists appeared before legislative committees, their opposition was naturally construed as due to jealous rivalry, for, it was said, "had not the bill received the endorsement of disinterested physicians?" These endorsements in almost all instances where optometry legislation has been enacted were obtained through misrepresentation as to the real intent of the law.

We believe every physician owes it as a duty to himself, his patients, and the medical profession, to oppose strenuously this legislation. Of what use are the rigid statutory provisions governing entrance to the medical profession when a "Doctor" can be created by statute? And if a "Doctor of optometry" why not a "Doctor of dermatology" or of "gastrology" or of "gynecology," etc.? At this rate the human body would soon be parceled out among near-doctors.

The American Medical Association has put itself on record as unequivocally opposed to this legislation. The better class of opticians are themselves opposed to this measure; e. g., three leading optical houses of St. Louis have written letters to members of the legislature demanding the defeat of this measure. Massachusetts, Connecticut, Texas, Illinois, Maryland and Ohio, have recently refused to adopt the measure. All county medical societies in this state are opposed to this legislation; some have already passed strong resolutions in condemnation of the bill and others will take similar action.¹

If the members of the profession will unite and stay united in the demand for the defeat of this bill, it will never find a place on the statute books of Missouri. If, on the contrary, the opposition be half-hearted the opticians, who are well organized and aggressive, may carry the day. Their victory would give courage to others without medical training who are plotting to invade other branches of medical practice.

F. E. WOODRUFF, M.D., Chairman.
JOHN GREEN, JR., M.D.,
J. ELLIS JENNINGS, M.D.,
F. P. PARKER, M.D.,
J. F. SHOEMAKER, M.D.,

The Committee.

1. Greene County, Nov. 11, 1910, Jour. Missouri Med. Assn., December, 1910; Adair County, Jan. 5, 1911, Jour. Missouri Med. Assn., February, 1911; St. Louis Medical Society, Jan. 14, 1911, Jour. Missouri Med. Assn., February, 1911.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

FEBRUARY, 1911

EDITORIAL

LEGISLATIVE MATTERS

We must call on all our members to do everything they can to assist in the defeat of the optometry bill introduced in this session of the legislature as House Bill No. 93. We are glad to announce to the members that the bill at the present time seems doomed for we have promises of a large number of the members of the general assembly that it will not be supported. Notwithstanding this encouraging outlook, we must continue to enlighten the members of the legislature concerning the objections to the bill and the bad effect it would have, if passed, by loosening on the public a large number of incompetent and ignorant persons filled with the conceit that they can by fitting glasses give relief to all kinds of eye trouble, including systemic diseases with eye symptoms.

There is another bill in the House authorizing the establishment of a separate board of examiners for eclectic. This is House Bill No. 52. It should not be allowed to become a law for it is absolutely contrary to the spirit of present day medicine. Graduates of medical colleges, irrespective of the system of medicine which they have studied, should be compelled to treat diseases according to the best information gleaned from the latest achievements of the science; this can be done only by refusing to allow medical practice to be restricted by the dogmas of any ilk or cult.

Missouri has taken a position in late years which has raised the medical profession to a high standard in the licensing of physicians to practice; this advanced step should not be hobbled with laws exempting any particular set of persons whose medical and literary education is not up to the standard set for a student of medicine to fit himself for the serious duties which the practice of this profession entails.

We are hopeful that we may chronicle in the next issue the defeat of these bills, for the complexion of both branches of the general assembly is highly intelligent and the majority of the members are imbued with the spirit which makes for good laws and progressive legislation. Assuredly it would be a backward step to permit the passage of such vicious legislation as is contem-

plated in the optometry bill and the eclectic examiners' bill.

We owe much to the effective work of the county societies and the members of the committee on public policy and legislation, including the auxiliary members from the county societies, in molding opinion against these measures, for they have responded with splendid zeal and promptness to the appeals for assistance; representatives from the different counties have therefore been fully informed by their constituents of the real intent and purpose of such useless measures.

Our organization is now in position to throw light on such cases and the fact that the voice of the profession is heeded whenever measures affecting the public health are under discussion is in strong contrast to the impotent and fruitless work of individual members of the profession in the past.

DEPARTMENT OF PREVENTIVE MEDICINE AT WASHINGTON UNIVERSITY MEDICAL SCHOOL—DR. EDSALL TO BE AT HEAD

While the prevention of disease and the conservation of health, public and private, have been regarded as of overwhelming importance, very little provision has been made in the medical schools of the country for instruction and research in preventive medicine. The establishment of a department of preventive medicine was therefore contemplated in the original plan for the reorganization of the Washington University Medical School; and such a department has now been founded, with Dr. David L. Edsall as its head. He is expected to begin his work at the beginning of the next session of the Medical School, in September, 1911.

Harvard University has thus far stood alone in the field of preventive medicine, but the Washington University Medical School proposes to undertake on a much more comprehensive plan, not only teaching but research in this field. Such problems as the following will be considered and investigated: heredity and environment; the influence of occupation on disease, especially the effect of prolonged strain in producing disease of the vascular and nervous systems; the influence of occupation on infectious disease both in cases of children and women, directly as well as in relation to their progeny; the principles of diet and nutrition; foods, their values and preparation; the choice of economical diets and the determination of diet values in types of disease; exercise, its physiologic effects, as well as the effect of the lack of it; infant mortality; institutional and school hygiene; infectious diseases, the manner of their propagation and prevention; public and private sanitation, the responsibility

of the state and of the community, the methods of state and community control in regulation at home and abroad.

Not only will undergraduate and graduate instruction and research be conducted in these various fields, but opportunities will be furnished for practicing physicians to do special work, and those working in health departments. Public lecturers will be provided on topics of importance to the community, such as water, milk, foods, diet, drug and other habits, infections, and epidemics.

Dr. Edsall has been for fifteen years a member of the medical faculty of the University of Pennsylvania, and is exceptionally well known as a teacher and an investigator. Born in Hamburg, N. J., he is a graduate of the Princeton University, and received the degree of M.D. from the University of Pennsylvania. He then studied in London, Vienna, and other medical centers. He is a member of the Association of American Physicians; of the Association for the Advancement of Clinical Research, of which he was president in 1910; and of the Society for the Prevention of Infant Mortality. He was chairman of the Section of Pharmacology and Therapeutics of the American Medical Association which met in St. Louis last June, and is a member of the Council on Pharmacy and Chemistry, which determines the purity of drugs and other preparations used as remedies. His contributions to the knowledge of preventive medicine have been numerous. He is a trained chemist, and has applied chemistry to the elucidation of medical problems. He has been particularly interested in diseases which result from harmful occupations, and has contributed to Dr. Osler's work on "Modern Medicine" chapters on the various forms of poisoning likely to occur when irritating substances are handled for commercial purposes. Recently he called attention to a malady affecting stokers who are exposed to intense heat (*Washington University Record*, January 1911).

"606"

It seems that dioxydiamidoarsenobenzol (606) is a compound similar to a number of arsenical preparations with which we are more or less familiar. The best known forms of organic arsenic are atoxyl, arsacetin, cacodyl or sodium cacodylate, arsenophenylglycin and the arylarsonates (soamin, etc.). The treatment of many of the plasmodial diseases with these compounds has been most satisfactory, but all have been more or less destructive to vision, with the probable exception of cacodyl. Of atoxyl it may be said that blindness due to optic atrophy has been such a constant sequel following repeated doses that the drug has been practically abandoned. We hope that "606" will not be followed

by such an unfortunate complication. It has not been used over a sufficient period to give us any clue as to its probable effect, for the atrophic process from organic arsenical poisoning extends over a period of from several months to a year or more; but it is reassuring in this connection to remember that the dose of "606" is just one massive "dosis sterilisans," and that atrophy of the optic nerve has usually followed repeated injections of small amounts of similar drugs.

The writer has seen several cases injected with "606," always with fairly satisfactory results, though the pain at the site of the injection is often terrific and lasts from two to four days. The drug seems to coagulate the tissues. In one case of tertiary syphilis we cannot say that its use was a benefit, but in the other few cases the clinical evidences of the disease rapidly disappeared.

In view of the fact that several deaths have occurred (and we are reliably informed that some deaths have occurred which have not been reported) and with due regard to the fact that blindness has been a fairly constant accompaniment of the use of other organic arsenic compounds, we should withhold judgment of the value of this newer preparation, and continue to depend on the intelligent administration of known forms of treatment until we are satisfied that there are to be no disastrous by-effects. We should not hesitate to use this or any of the organic arsenic preparations in malignant syphilis; in fact, from what we have so far seen and read we should urge its use in these cases.

In our hands sodium cacodylate in large doses has been effective where mercury has failed, and if the newer drug proves of no more benefit than this it will be a great addition to our therapy. But in the meantime we should remember that Schild, Neisser and others reported most flatteringly some years ago on the advantages of atoxyl; that in 1902 Koch cured sleeping-sickness with it; but the development of blindness in one case out of less than each 100 treated caused a cessation of its use; and blindness has followed the use of every one of the organic arsenic preparations, with the possible exception of the non-oxygen-bearing compound cacodyl (tetra-methyl-arsen).

CORRESPONDENCE

PAPERS FOR THE ANNUAL MEETING

The Program Committee requests the publication of the following letter:

To County Society Secretaries:

A resolution was adopted at a former meeting of the State Association inviting county societies to appoint a member who had contributed an

essay of special merit before the county society to present the same paper at the annual meeting of the State Association.

Has your society taken such action? If so, kindly send the name of the author and the title of the paper to one of the members of the Program Committee, at once.

If your society has not appointed one of your members to read a paper at the annual meeting of the State Association, will you be good enough to send names of those of your members who would be willing to prepare papers for the annual meeting and the committee will then communicate with these gentlemen.

Your prompt attention to this matter will greatly aid the Program Committee to prepare a varied and interesting program for the annual session and your assistance will be highly appreciated.

Very truly yours,

JOSEPH GRINDON, Chairman.

NOT NOW TEACHING IN ECLECTIC SCHOOL

LIBERTY, Mo., Dec. 24, 1910.

Dr. E. J. Goodwin, Secy.,
St. Louis, Mo.

Dear Doctor:

In regard to your letter of inquiry of some months ago, relative to Drs. E. Lowrey and W. S. Wallace of Excelsior Springs being connected with the Western Eclectic University of Kansas City, I beg to advise that the Clay County Medical Society has investigated this matter thoroughly and instructs me to say that their names appear in said school catalogue without their consent and that they are not now nor have been for two years connected with the school.

Yours truly,

(Signed) F. H. MATTHEWS, Secy.

DEPARTMENT OF PUBLIC HEALTH

A letter has been sent to all county medical society secretaries concerning the opposition of certain persons to the proposed establishment of a Department of Public Health, and is published here for the purpose of informing all members of the Association with the situation. It is the desire of the officers that the members take an active interest in this question and assist in educating the public on the importance of governmental aid to prevent and limit the ravages of human diseases as far as possible. The letter follows:

To Secretaries of all County Medical Societies:

DEAR DOCTOR:—There seems to be a concerted effort in some parts of the state, notably in the Ninth Congressional District (Champ Clark's district), against the Owen bill, providing for the establishment of a

department of public health at Washington. A person calling himself Dr. Evans, from Kansas City, is advancing arguments against the bill, as follows:

- 1st. It would increase the expense of the government.
- 2nd. That the A. M. A., as a body, is against the bill.
- 3rd. That it injects politics into medicine.
- 4th. That it forms a trust to compel the people to patronize one kind of physician.
- 5th. That the *Journal of the A. M. A.* copyrights its contents.

In answer to these arguments, you may say:

- 1st. It will not increase the expense of the government.
- 2nd. That the A. M. A., as a body, is distinctly and unanimously in favor of a department of public health, and at its St. Louis session in June, 1910, adopted resolutions endorsing the bill.
- 3rd. That it would not draw the medical profession into politics.
- 4th. That it does not form a trust, for the constitution of the United States prohibits the national government from interfering with the rights of states to enforce their own laws.
- 5th. That the copyright of articles by the *Journal of the A. M. A.* is a proper thing to do, and is in line with the practice of all high-class periodicals, medical and lay, but such copyright does not prevent any other publication from reprinting whatever may appear in the *Journal*, with proper credit.

The Owen bill simply provides for the assembling in one department of all existing health agencies of the government which are to-day scattered throughout the various departments of the Federal government. Any statement that this bill will in any way interfere with or have any effect on the individual practice of medicine, or the conduct of medical colleges, is due to deliberate misrepresentation or ignorance. The licensing of physicians comes under what is legally known as the police power of the state. This is a power which has been reserved by the states, under the constitution of the United States, and cannot be exercised by the national government. Congress has no authority to pass any law in any way interfering with the practice of medicine in the different states, and all congressmen and well-informed persons are perfectly well aware of this. The statements made by the National League of Medical Freedom and its representatives, that it was the intention of the Owen bill to "monopolize" the practice of medicine, are ridiculous and absurd. A National Department of Health will have no more to do with the individual practice of medicine than the Department of Agriculture has to do with the individual farmer. For instance, the Agricultural Department does not attempt to dictate to the farmer from whom he shall buy his farming implements, seeds, etc., nor would it do so if it could. It simply furnishes him with information regarding the best way to secure good crops, fine stock, etc. Now, in exactly the same way, a Department of Health could not interfere with the individual citizen in any way. It could simply supply the public with information as to how certain diseases could be avoided and better health secured. The Owen bill is a most excellent measure and is deserving of the support of all physicians and fair-minded citizens.

I believe it is important that you call a public meeting under the auspices of your county medical society and explain to the people the provisions of the Owen bill. Get some good speakers, lawyers, ministers and teachers who are friendly to the movement, as well as members of our profession, to give talks on public health, hygiene and sanitation, and show how the government can assist the doctors and the people to prevent disease, just as the government now assists the farmer and the stockman to increase crops and breed fine stock and prevent their decay and death.

Publish in the newspapers notices of the meeting and have it at a time when you believe there will be a good chance of the people attending it. You will know what would be the best time to suit your local conditions.

Make a report of the meeting immediately after it is over, and send that to the Secretary of the State Association. These reports will be forwarded to Washington for the information of our congressmen.

A copy of the Owen bill was published in our State Journal for June, 1910, page 807. Look it up and show it to your principal speakers, especially the lawyers who are friendly, and get them to explain it to the people as outlined above.

Yours very truly,

R. M. FUNKHOUSER,

Chairman Public Policy and Legislation.

E. J. GOODWIN, Secretary.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF CITY HOSPITAL ALUMNI

On January 5 the society held its annual banquet at the Missouri Athletic Club. There were about 150 present including a number of invited guests. A story-telling contest was a unique number on the program; many of the stories reflected phases of life at the City Hospital which showed that the service had its amusing side as well as the serious one of treating the sick. Dr. Miller for the corps of 1900 read a short tribute to its members as follows:

"To the corps of 1900, which served in the St. Louis temporary City Hospital at Seventeenth and Pine, this gathering has an added significance, for it marks our tenth anniversary. They, too, were good fellows when they got together and they are good fellows still though scattered far apart.

"Two of the boys have died. Tuff sleeps his last long sleep amongst the peaceful hills of Arkansas. Slusher's grave is covered deep with Colorado's snows. And one of us—the bravest of us all—is fighting for a good deep breath in the mountains of New Mexico. I would not dare call any one of these a hero. Each of them would resent the word as he would an epithet. We ask no cheers for our living, no tears for our dead. They fell with their faces to the front while on the line of duty.

"After all, we doctors are merely leukocytes in this gigantic organism to which we belong—our nation. Not the big polynuclears—they are the army and navy. Not the eosinophils—they are our civil officers. Rather are we the little mononuclears, and when a leukocytosis is demanded we must respond without regard for the consequences and without pity for ourselves.

"Strangers who pass the block at Seventeenth and Pine see only a vacant lot, littered with debris. But we who lived there once, when we go by, still see the old gray walls of the temporary City Hospital. Sometimes we revisit it in our dreams. We go back late at night and sign in on the book just as we used to do. We wander through the halls down to the receiving room where stretcher bearers nod upon a bench waiting for the ill and maimed. Then back upstairs through 4 and 5, where men have all the sores that Lazarus ever had; through 3 and 2, where women fret and weep. In old 15 we see our favorite patients swathed in crinoline. We see long rows of beds in 8 and 9 under dim and shaded lights. We cross an open gallery into a long and barren hall and go to our own small room. Our room-mates are in bed. We look out through the narrow window panes upon the town below, which mumbles in its sleep. We turn out the

light, climb into our high, black, iron cot, and fall asleep ourselves to dream of the day when we shall be great doctors—a dream within a dream."

ADAIR COUNTY MEDICAL SOCIETY

The Adair County Medical Society held its regular monthly meeting on Thursday evening, January 5, in the office of Dr. T. R. Butler, Kirksville. In the absence of the president, Dr. E. S. Quinn, the meeting was called to order by vice-president T. R. Butler.

The following resolution was introduced by the secretary and adopted:

WHEREAS, A movement is in progress to establish recognition of a class of persons known as "optometrists" and to legalize the practice of "optometry" in the State of Missouri, and

WHEREAS, The medical profession of Adair County believes that in the interests of suffering humanity, for the protection of those afflicted with eye disease, and in behalf of educated and legalized medical practitioners this act should not be tolerated or legalized, therefore be it

Resolved, By the Adair County Medical Society in session in the city of Kirksville this 5th day of January, 1911, that said Adair County Medical Society does hereby petition the Hon. S. M. Pickler, representative from Adair County in the Missouri legislature to consider carefully the claims of this class of "optometrists" and the counter-claims of the medical profession and to use his influence against the passage of such an act.

Dr. T. R. Butler then gave a very interesting lecture on "Ophthalmia Neonatorum," which brought out many valuable points. Dr. A. W. Parrish opened the discussion and was followed by all members present.

The meeting was a very profitable one and Dr. Butler is to be commended for the amount of energy he instills into the meeting and the interest demonstrated by the members.

There being no further business to transact, the society adjourned to meet in the office of Dr. E. C. Callison, Kirksville, on the first Thursday in February.

BERT B. PARRISH, M.D., Secretary.

BENTON COUNTY MEDICAL ASSOCIATION

On December 15, Dr. W. G. Jones, the president, called a meeting for the 30th, to be held in Warsaw, but on account of an outbreak of lagrippe throughout this section on about the 25th every physician was so busy that the meeting had to be postponed indefinitely to some future date when the general health should be restored to the people of this community.

A general good feeling exists among all physicians of our society, and all work together with that altruistic spirit which pervades the lives of all noble-minded men of our profession.

Any future meetings will be reported for the good of the cause, and we are as one man, eager to help in every good cause.

J. R. SMITH, M.D., Secretary.

CALDWELL COUNTY MEDICAL SOCIETY

The Caldwell County Medical Society met in regular session at Hamilton in Dr. Tinsley Brown's office, January 11, 1911. The following papers were read and discussed:

"Chronic Constipation," by Dr. W. M. Dufie, Hamilton.

"The Importance of a Correct Clinical Diagnosis," by Dr. Tinsley Brown, Hamilton.

"The Nervous System and Lues with Report of Cases," by Dr. G. Wilse Robinson, Kansas City.

The attendance at this meeting was small on account of bad weather and an epidemic of lagrippe which kept many physicians too busy to attend.

G. W. GOINS, M.D., Secretary.

COLE COUNTY MEDICAL SOCIETY

The Cole County Medical Society met in regular session in Jefferson City, January 12.

The following officers were elected for the year: Dr. I. N. Enloe, president; Dr. M. R. Aldridge, vice-president; Dr. Gustav Ettmueller, treasurer; Dr. J. S. Summers, secretary; Dr. H. G. Shobe, delegate.

More interest is being taken in the society than usual and we hope to make this the best year in its history.

Our next regular meeting will be held at the county courthouse, February 9.

J. S. SUMMERS, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

ANNUAL MEETING, JAN. 7, 1911

The members of the Greene County Medical Society were the guests of the president, Dr. B. F. Fortner, at a banquet given at the Springfield Club, January 7th. An elegant seven-course dinner was served after which, the president acting as toastmaster, quite a number responded to calls for a talk on subjects pertaining to medical legislation both state and local. An enjoyable evening was spent and all members present pledged their support to make this the best year of the society's history.

MEETING OF JAN. 27, 1911

On Friday, January 27th, the society met in regular session for the first time this year. Dr. B. F. Fortner was present and presided over the meeting. The report of the secretary and treasurer was read and accepted. Quite a number of bills relating to medical legislation were read and disposed of.

Dr. Thos. O. Klingner read a paper on "Eye-Strain" which was ably discussed by Drs. W. A. Camp, T. A. Coffelt, D. B. Farnsworth and others.

THOS. O. KLINGNER, M.D., Secretary.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society met January 24, 1911, at Carnegie Library, Dr. R. M. James in the chair.

Dr. R. L. Neff reported several cases of pneumonia and nasopharyngeal affections, which were peculiar in that the temperature was extremely low.

Dr. M. L. Mack reported cases of acute catarrhal affections of throat and middle ear. Dr. Mack made microscopical examination of discharge of the middle ear infection and found intercellular diplococcus. Both doctors believe these cases to be influenza.

Dr. James reported a case of ocular paralysis following acute follicular tonsillitis.

Dr. Hill read a paper on "Hypnotism," but was disappointed in that subjects for demonstration failed to materialize. After the paper was discussed, the society adjourned.

Those present were: Drs. Freeman, Neff, Babbitt, Cummings, Taulbee, Shelton, James, Hill, J. W. Clark and Gregg.

MARY L. MACK, M.D., Secretary.

LINN COUNTY MEDICAL SOCIETY

At a meeting of the Linn County Medical Society the following officers were elected: Dr. J. B. Eure, Brookfield, president; Dr. J. W. Epler, Bucklin, first vice-president; Dr. F. W. Burke, Laclede, secretary; Dr. J. L. Burke, Laclede, treasurer; Dr. T. P. Oven,

Brookfield, delegate to State Association meeting; Dr. Robt. Haley, Brookfield, alternate; board of censors: A. T. Brownfield, Brookfield; E. D. Standly, Brookfield; D. F. Howard, Brookfield.

Our next meeting will be held in Brookfield, February 14, 1911. Three papers will be read and discussed at this meeting, as follows:

"The Office Management of Ordinary Diseases and Injuries of the Eye," by Dr. Robt. Haley.

"Influenza," by Dr. R. W. Whaley.

"Pneumonia," by Dr. Ola Putnam.

F. W. BURKE, M.D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY

The Platte County Medical Society held its regular monthly meeting at Platte City, January 4th, and the following scientific program was carried out: "Pneumonia," by Dr. H. M. Clark, Platte City. "Pleurisy with Effusion," by Dr. S. Redman, Platte City. "Demonstration of Special Bandage," by Dr. F. M. Shafer, Edgerton.

These subjects were ably presented and discussed by those present.

Dr. F. M. Shafer was elected alternate delegate to the State Association. A committee on public health and legislation was appointed consisting of the following members: Drs. J. Underwood, Parkville; A. R. Mitchell, Edgerton; C. H. Chastain, Weston.

Members present: Drs. H. M. Clark, A. S. J. Smith, S. Redman, E. R. Hull, F. M. Shafer, G. A. Harrel, and G. C. Coffey.

During the year meetings will be held at Edgerton in November; Weston in February; Parkville in October; Camden Point in June; Dearborn in May and September; all other meetings will be held in Platte City.

The annual public health meeting will be at Dearborn, May 3rd. A scientific program has been arranged for the afternoon session and a public address at night.

Dr. William Frick of Kansas City will be with us at Platte City April 5th.

Next session will be held at Weston, February 1st.

A. S. J. SMITH, M.D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY

The Schuyler County Medical Society met in regular session at Lancaster, Jan. 5, 1911. The members present were Drs. W. H. Zieber, A. J. Drake, W. H. Justise, E. L. Mitchell, B. B. Potter, J. H. Keller and H. E. Gerwig.

Dr. W. A. Potter's application for membership into the society was, by a unanimous vote, approved and he was elected a member of our society.

The election of officers resulted as follows: Dr. A. J. Drake, president; Dr. B. B. Potter, vice-president; Dr. H. E. Gerwig, secretary and treasurer; Dr. W. H. Justise, delegate to state meeting; Dr. E. L. Mitchell, alternate.

Drs. Gerwig, Bridges, Drake, Mitchell, Justise, Keller, Zieber, B. B. Potter and W. A. Potter paid their annual dues.

Drs. Bridges and F. B. Farrington were appointed to read papers at next meeting to be held in Lancaster, March 23, 1911.

The society adjourned and the members met with the county school commissioner and all the teachers of the Lancaster high school to discuss hygiene and sanitation as applied to schools for prevention of infectious diseases, and examination of children. Dr. W. H. Zieber read a very able paper on "Adenoids." Dr. W. A. Potter read a paper on "Tonsillectomy." and Dr. Aubrey Justise, dentist, presented a paper on "Oral

Prophylaxis." This paper was enjoyed by all and the society extended a vote of thanks to him for such an able paper.

The meeting adjourned to March 23, 1911.

H. E. GERWIG, M.D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY

The Scott County Medical Society met at Dr. U. P. Haw's office at Benton, January 23rd and elected the following officers for the ensuing year: President, W. H. Wescoat, Oran; vice-president, P. S. Tate, Morley; secretary, W. S. Hutton, Fornfelt; treasurer, U. P. Haw, Benton; censors, Roy Frazer, Commerce, 3 years; Fred Ogilvie, Blodgett, 2 years; S. J. Wade, Benton, 1 year.

There being no program, after several unsuccessful attempts to have open meeting, the society will get down to business and cease trying to enlighten the public. General discussion was entered into on pneumonia and gonorrhea.

The society adjourned to meet the first Monday in April.

W. S. HUTTON, M.D., Secretary.

ST. CHARLES COUNTY MEDICAL SOCIETY

The St. Charles County Medical Society met in regular session on Nov. 15, 1910, the president, Dr. Omar Morgner, presiding.

Dr. D. O. Hudson, of Montgomery City, was present by invitation and read a paper on "Euthanasia for All Hopelessly Insane and Idiots." This was freely discussed by all members present.

The following officers were elected for the year 1911: Dr. S. R. Johnson, president; Dr. B. T. Wenker, vice-president; Dr. C. Bitter, treasurer; Dr. T. L. Hardin, secretary; Dr. F. J. Tainter, censor, all of St. Charles.

The society adjourned to meet again the first Tuesday in May, 1911.

T. L. HARDIN, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

The regular meeting of the society was held at the State Hospital upon invitation of the superintendent, Dr. A. C. Pettijohn, on the evening of December 21.

Dr. C. R. Woodson called the society to order at 8 o'clock and introduced Dr. Pettijohn, who made a few introductory remarks in which he stated that he believed that a state institution should be utilized for the purpose of scientific investigation and demonstration, and that he hoped to make State Hospital No. 2 of value scientifically to the local society as well as to the college.

The program of the evening consisted of a demonstration of the Wassermann reaction, by Dr. H. P. Mills; a clinic on "Paresis," by Dr. W. E. Carey; and a clinic on "Mania" by Dr. A. H. Vandivert, all of which were very instructive and the program was very much enjoyed by those present.

After adjournment the members of the society were invited to the dining-room where a most appetizing spread was presented. Covers were laid for 60.

Report of the secretary for the year 1910:
To the President and Members of the Society:

I have the honor to present the eighth annual report of the secretary.

The year just closed marks an era of progress in our society and one which has been filled with entertaining and instructive work in our post-graduate course. This year also marks the era of greatest activity in our society, thirty-seven meetings having been held. I regret to state, however, that the post-graduate feature did not seem to be appreciated by the majority of our members, as evidenced by a vote on November 2, by

which the society decided to return to the former plan of papers and discussion. The society took another step backward in my estimation when it changed from the weekly to the fortnightly meetings.

There have, however, been other evidences of life and progress in our society, among which I may mention the publication of the Society Bulletin, containing the program and information for our members; the installation of the Bell telephone for the exclusive use of our members; the merging of the Andrew County Medical Society on March 3d; and the "get-together" meeting with the druggists at Hotel Robidoux on April 28th. At this meeting the resolution in favor of a "sane Fourth of July" was introduced and adopted, this measure having since been carried to the City Council by the Ad Club.

Among the distinguished visitors to our city during the past year may be mentioned, Dr. Tinsley Brown, ex-president of the Missouri State Society; Dr. Martin Dewey, of Kansas City, who lectured on "Adenoids and Mal-Occlusion of the Teeth," on May 12; Dr. S. A. Knopf, who lectured on "Tuberculosis," under the auspices of our Tuberculosis Society.

The society also has been active in matters of hygiene and prophylaxis and was instrumental in introducing certified milk into our city. And now with our president a member of the Board of Health, we shall expect still greater things from our organization in the line of civic improvement and purity.

The crowning event of the year in a social way, and one of the best in the history of our organization, was the banquet given on the evening of November 7, in honor of our first president and past grandmaster of good fellows, Dr. Thos. H. Doyle. A loving cup was presented as a slight token of the esteem in which Dr. Doyle is held by his colleagues. I believe this event is worthy of emulation and should be repeated each year in honor of those who have served the profession and have borne the burden of toil in the early days. The sweet fragrance of flowers is much more appreciated by the living than by the dead.

I am called upon in this report to chronicle the death of one of our members, Dr. Frederick A. Patterson, acting superintendent of State Hospital No. 2, who died February 18, 1910. Resolutions of respect were passed by this body on March 3d.

Before closing I wish to call the attention of our members to the meeting of the State Society to be held in Jefferson City in May. I am also interested in seeing a large delegation from our society at the meeting of the American Medical Association at Los Angeles, June 27. A special party will travel by special train to Los Angeles with an excursion following through California, with stops at San Francisco, Portland and Seattle and returning by way of the Canadian Pacific Railroad. This is the time to make reservation for your hotel accommodations in Los Angeles. If action is taken early by our society we can secure rooms at the general headquarters, the "Alexandria," which is the finest hotel in Los Angeles. Reservations, however, must be made this month or they cannot be obtained. I shall be pleased to attend to bookings, both for rooms and for sleepers on the excursion train.

RECAPITULATION

Meetings held	37
Special meetings	0
Special sessions	1
Number of members last report	90
Number of active members 1910	114
Gain	24
Honorary members	2
Average attendance	21
Number of papers	29
Post-graduate lectures	41
Number of cases reported	18
Number of physicians in county not members	82
Number eligible	24

In conclusion I desire to extend my sincere thanks to the officers and members of the society with whom I have been closely associated for seven years, and I hope that our relations may continue as cordial in the future as they have been in the past.

Respectfully submitted,

CHAS. WOOD FASSETT, Secretary.

Dr. Woodson, the retiring president, advised the members of the society to be broad-minded in their professional dealings with one another, and to avoid petty jealousies. He recommended the presentation of clinics by individual members and a discussion of each case at future meetings, and favored the early keeping of the promise, made to the Andrew County members of the society, to meet in one of their towns—whichever one they desire.

Dr. Kessler, on assuming his office, asked for the earnest cooperation of every member of the society during his incumbency and said he would do his part to the full measure of his ability.

He appointed the committees to serve during the current year:

Public Health and Legislation: Drs. E. S. Ballard, J. K. Graham, J. B. Reynolds and J. T. Stamey.

Executive: Drs. O. B. Campbell, W. S. Fast and B. B. Simmonds.

Program: Drs. W. T. Elam, Floyd H. Spencer and Clarence A. Good.

Tuberculosis Committee: Discontinued on account of formation of local society.

Dr. Fassett presented the secretary's eighth annual report, and on retiring thanked the members of the society for uniform courtesies during his seven years of office. He was tendered a unanimous rising vote of appreciation for his services.

By vote, Dr. Fassett was granted 15 minutes time to canvass subscriptions among the members present, in aid of the St. Joseph Convention Committee, so that the Missouri Valley Medical Association may be appropriately entertained, at the meeting here in March, 1911.

Application for membership read from Dr. Wm. E. Pentz. Referred to the Censors.

Dr. Gustav A. Lau read the paper of the evening on Ehrlich's Dioxydiamido-arsenobenzol (606), known commercially as "salvarsan." The paper was ably presented, and discussed by Drs. P. I. Leonard, W. L. Kenney, C. R. Woodson, W. T. Elam, J. J. Banschach, T. M. Paul, C. M. Sampson and H. P. Mills. Discussion closed by Dr. Lau, who has recently returned from the hospitals of Berlin and Vienna.

Dr. Kessler read a letter from the City Board of Health urging the prompt reporting of all contagious diseases including tuberculosis now required by law. Dr. C. R. Woodson raised the point that these reports should be made on postal cards, to avoid a possible conflict with the Federal Statutes, in regard to mailable matter, or the rights of individual patients, under State Laws. It was suggested that a legal opinion be obtained on this question from the City Counselor.

MEETING OF JANUARY 18

Dr. S. F. Kessler, president, in the chair.

Library Committee appointed: Drs. J. M. Bell, P. I. Leonard, C. M. Sampson. Report of Dr. J. M. Bell as treasurer of the society for 1910 read and accepted. Credit balance to the end of the year was \$3.63. Application for membership of Dr. W. E. Pentz, having been approved by two censors was voted on. He was declared duly elected.

The paper of the evening on "The Prognosis of Valvular Diseases of the Heart," read by Dr. Clarence A. Good, discussed by Drs. McGill, Deffenbaugh, Banschach, Leonard, Kessler and C. M. Sampson.

Discussion closed by Dr. Good, who also reported the case of a boy operated on for perforation of the bowel during an attack of typhoid fever, with subsequent recovery.

Dr. McGill reported the case of another boy operated on for appendicitis during an attack of typhoid, with recovery.

Dr. C. M. Sampson mentioned the case of a woman suffering from persistent and intractable headaches.

HERBERT LEE, M.D., Secretary.

ST. LOUIS MEDICAL SOCIETY

MEETING OF DEC. 10, 1910

(Omitted from January Issue.)

This meeting was conducted by the Medical Section. The paper of the evening was contributed by Dr. H. W. Soper, his subject being, "Gastroenterostomy."

The paper was discussed by Drs. Jonas, Schlueter, W. G. Moore, A. E. Meisenbach, Cook, and Dr. Soper in closing.

MEETING OF JAN. 4, 1911

This meeting was held under the auspices of the Ophthalmic Section. After the presentation of unannounced specimens and patients, Dr. E. H. Higbee read a paper on "A New Method of Making Tinted Lenses." The officers and committees read their reports, whereupon the Section proceeded to the election of officers for 1911, with the following result: Chairman, M. H. Post; vice-chairman, J. Ellis Jennings; secretary, E. E. Woodruff; treasurer, E. H. Higbee, Jr.; editor, J. G. Calhoun.

MEETING OF JANUARY 7

This was the annual meeting of the society, at which the reports of the officers, sections and committees were read. Then followed the address of the retiring president, Dr. Henry Schwartz. After the induction of the newly elected officers, the incoming president, Dr. Robert E. Schlueter, delivered an address. Both addresses were much enjoyed by all present.

The remainder of the evening was spent in social reunion.

MEETING OF JANUARY 13

This was a joint meeting of the general society with the Medical Society of the City Hospital Alumni, for the purpose of discussing the new charter for the city of St. Louis. The speakers were members of the board of freeholders, the charter publicity committee and the medical profession.

MEETING OF JANUARY 14

This meeting was conducted under the auspices of the Section on Internal Medicine. The only paper of the evening was by Dr. M. A. Bliss on "The Symptom Complex of Transverse Lesions of the Spinal Cord."

MEETING OF JANUARY 21

This was the regular meeting of the general society. The two numbers on the program were:

"The Cornelius Treatment; with Report of a Case," by Dr. Elizabeth Bentele.

"Proctitis; with Lantern Slide Demonstration," by Dr. W. H. Stauffer.

MEETING OF JANUARY 24

This meeting was held under the auspices of the Section on Obstetrics and Diseases of Women. The program follows: "Demonstration of a Hydatid Mole," by Dr. F. J. Taussig; "Report of Two Cases of Pubotomy," by Drs. B. W. Moore and T. W. White. Dr. Lydia M. DeWitt gave a demonstration, with photographs and lantern slides, of pathological conditions

found in the placenta, the discussion being opened by Dr. R. L. Thompson. Dr. J. B. Prichard presented three coroner's specimens of septic abortion.

Dr. Palmer Findley, of Omaha, Neb., by invitation, read a paper on "The Surgery of Puerperal Sepsis," and Dr. L. P. Butler read a paper on "Septic and Aseptic Thrombophlebitis." The discussion on both papers was opened by Dr. Henry Schwarz. The last number was a paper by Dr. Hugo Ehrenfest, on "Momburg's Belt-Constriction in Obstetrics."

MEETING OF JANUARY 25

This meeting was held under the auspices of the Oto-Laryngological Section, at which Dr. M. A. Goldstein presented the following:

Cancer of the larynx, thyrotomy, intralaryngeal removal of neoplasm. Presentation of patient and specimen.

Periosteal abscess without involvement of tympanic or mastoid cavities, in a baby ten months old.

Granuloma and bone sequestrum, following chronic suppurative otitis media; mastoid operation; facial paralysis developing two weeks later. Presentation of patient.

Salivary calculus; obstruction of duct; removal of the calculus. Presentation of patient and specimen. Case of Dr. E. Lee Myers.

The Surgical Section of the St. Louis Medical Society has closed a year of unusual interest under the chairmanship of Dr. Norville Wallace Sharpe. The exceptional merit of the contributions whether in the form of papers, pathologic specimens, or patients, has been largely due to the selective skill and painstaking endeavor of Dr. Edmund A. Babler, chairman of the committee on program.

The closing meeting, January 28th, consisted in papers; 1. "Bearing of Old and New Facts on our Conception of Cardiovascular Disease," by Dr. Hobart A. Hare, of Philadelphia.

Discussion opened by Dr. Albert E. Taussig.

2. "Some Clinical Aspects of Tuberculosis of the Genito-Urinary Tract," by Dr. L. W. Bremerman, of Chicago.

Discussion opened by Dr. Cyrus E. Burford.

3. "The Cystoscopic Study of Urinary Tuberculosis (illustrated by Stereopticon slides)," by Dr. Ernest G. Mark, of Kansas City.

Discussion opened by Dr. George M. Phillips.

An informal smoker followed in the assembly rooms of the society.

On being asked to what might be credited the good work of the Surgical Section, Dr. Sharpe suggested: First, the simple plan of organization under which the Section operates. Second, individual initiation and responsibility among officers and committees. Third, cooperation among officers and committees ("team work"). Fourth, cooperation on the part of the members of the Section.

CATALOGUE ST. LOUIS MEDICAL LIBRARY 3525 Pine Street

(Continued from page 250)

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(To be continued.)

BOOK REVIEWS

THE PHYSICIANS' VISITING LIST FOR 1911. P. Blakiston's Son & Company 1012 Walnut Street, Philadelphia.

This is the 60th year of publication of Blakiston's Visiting List. It has always been a standard and this year's book is arranged with all the completeness and convenience of former editions. The price is \$1.25 for 25 patients per day or week; \$1.50 for 50 patients. Each book contains special memoranda pages.

SYMPTOMATIC AND REGIONAL THERAPEUTICS. By George Howard Hoxie, M.D., Professor of Internal Medicine University of Kansas. Price, cloth, \$4. D. Appleton & Company, Publishers, New York and London.

This is an excellent book. The first part is devoted to the consideration of symptoms and their relief and of the relations of symptoms to pathological processes. It is brief, clear and concise, a handy little book for the general practitioner. L. C.

EXAMINATION OF THE URINE; A MANUAL FOR STUDENTS AND PRACTITIONERS. By G. A. DeSautors Saxe, M.D., Instructor in Genito-Urinary Surgery, New York Post-Graduate Medical School and Hospital. Second edition, enlarged and reset. 12mo. of 448 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$1.75 net.

This excellent work is full of practical information. It is written in clear, concise sentences without effort at display. It is a valuable book for both student and practitioner. J. P. F.

MEDICAL ELECTRICITY AND RÖNTGEN RAYS. By Sinclair Tousey, A.M., M.D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Octavo of 1,116 pages, with 750 illustrations, 16 in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$7 net; half Morocco, \$8.50 net.

Tousey's work on medical electricity is a correct statement and lucid description of what has been done to date in medical electricity. The author has not hoped nor is it possible for anyone to write the last word on this subject. After several years of experimental use of the Röntgen ray in the treatment of diseases, I can say that there has come to my observation no book which points more plainly the way in the study of electrotherapy. J. P. R.

MODERN SURGERY; GENERAL AND OPERATIVE. By J. Chalmers DaCosta, M.D., Professor of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Sixth edition, greatly enlarged. Octavo of 1,502 pages, with 966 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5.50 net; half Morocco, \$7 net.

This splendid work has long been a favorite with practitioners. While, generally speaking it is succinct in its treatment of subjects, it is also encyclopedic in scope. The author has compressed and eliminated and yet to his regret the volume has grown as must be the case with all books representing an advancing science. More of the art and the science of surgery could not have been crowded into the compass of a single volume. D. F. F.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M.D., Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Third revised edition. Octavo of 764 pages. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$4; half Morocco, \$5.50 net.

The last edition of "Diet in Health and Disease," by Friedenwald and Ruhrah, has been read with pleasure. While we have read other works on the same subject and found them good, yet for some several years we have relied principally on Friedenwald & Ruhrah's book. To the student desiring a knowledge of dietetics, this work furnishes him with the material he needs. To the practitioner desiring to apply the principles of diet in disease, this book fills a place nothing else can supply. J. W. W.

THERAPEUTIC ACTION OF LIGHT INCLUDING THE RHO RAYS, SOLAR AND VIOLET RAYS, ELECTRIC ARC LIGHT, THE LIGHT CABINET. By Gorydon Eugene Rogers, M.D. Formerly demonstrator of anatomy in the University of New York City. Published by the author, 382 Second Avenue, New York.

The author has evidently given much time and study to the investigation of light, and especially the Rho Rays, as a remedial agent; and shows that he has a full and comprehensive knowledge of the subject.

The work is well and concisely written and will be read with profit by those who seek to keep abreast of the times in the art and science of healing.

It seems that the use of the Rho Rays is the main thing set forth by the author. While there is no doubt that much he claims for these rays is true, only time, experience and investigation will prove all that he claims. J. C. M.

THE PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Series 1910. Under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vols. I and VI. General Medicine, edited by Frank S. Billings, M.S., M.D., head of the Medical Department, and Dean of the Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School.

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THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

MARCH, 1911

Number 9

E. J. GOODWIN, M.D.,
EDITOR

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ORIGINAL ARTICLES

EMERGENCY CASES IN EYE, EAR, NOSE AND THROAT WORK; WITH SUGGESTIONS FOR THEIR CARE BY GENERAL PRACTITIONERS*

JOHN S. WEAVER, M.D.

KANSAS CITY, MO.

Introduction.—The Standard Dictionary defines an emergency as a "sudden condition calling for immediate action." The best treatment for some emergency cases is knowing what not to do.²⁰ Such cases are generally the result of accidents but they may occur in the course of acute or chronic disease. Either immediate or late results may range from slight discomfort with some loss of function to horrible agony and death. Although limiting our attention to only four anatomic parts, we cannot go into detailed discussion of all emergencies; only the more common ones will be enlarged on.

The treatment a case receives is, at least in part, a matter of population because in the larger cities the laity may go direct to a specialist while in the country there may not be one within a hundred miles, and at least "first dressing" must be made.

The qualifications the general practitioner should acquire for the care of eye, ear, nose and throat cases have been liberally discussed in literature.³ It would certainly not be expecting too much of him, if living in a place where specialists were readily available, to know what to look for through a nose or ear speculum with a head mirror, or into the nasopharynx or larynx with the angular mirror; he should have a convex glass for the examination of the eye with artificial light. If living in a place where no specialist is available he should add to the foregoing the ability to recognize the normal fundus of the eye through an ophthalmoscope. These of course

only for diagnosis; even emergency treatment would mean an increased armamentarium.

GENERAL CONSIDERATIONS

In sudden or persistent hemorrhages the possibility of vicarious menstruation, hemophilia, a recent operation, and intercurrent disease, such as anemia, malignancy or tuberculosis should be borne in mind.

In sudden *paralyses* apparent or real, without traumatism, think of hysteria,^{2, 13} syphilis,¹⁸ cerebral hemorrhage and the accidental or intentional effect of drugs.

In sudden *edemas* without traumatism, one is reminded of infection (including insect bites), the rheumatic diathesis and heart, liver, kidney or lung disease.

Emphysemas are generally due to valve action in a mucous membrane flap in the nose or throat.

Cold (atmospheric) would scarcely affect any of these organs except the external ear or external nose.

In *burns* the effect on the tissues is likely to be the same whether caused by flame, steam, electricity,⁵ or corrosive chemicals, depending only on the intensity and the time period of contact.

In localities where an *x-ray* picture cannot be taken, there are sometimes facilities for using the fluoroscope to advantage.⁶ It should be remembered that good *x-ray* pictures cannot be taken of wood, grains and other vegetable matter, but that glass, contrary to first thought, shows up well.

The *nasal cells* are sometimes the source of sudden affections of the eye.

SPECIFIC INSTANCES: EYE

Traumatism.—(Contusions, cuts, foreign bodies). A "black eye" should have dry cold for the first few hours and after that heat (with perhaps KI internally) to absorb the extravasated blood. Do not put leeches on the lids. Large cuts of the lids should be sutured, small cuts not.

The more important factors in dealing with a foreign body are, (1) did it penetrate the globe?

* Read before the Jackson County Medical Society, Dec. 13, 1910, Kansas City, Mo.

and (2) is it still within the globe? If the body has penetrated the globe, the treatment would be safer in the hands of the specialist with his large and small magnets and other special equipment. General practitioners can generally handle small foreign bodies on the lids or external eyeball if they will exchange window-light examinations for artificial light with a lens, and will always evert the upper lid. Two or three applications of a 4 per cent. solution of cocain will make the examination of the injured eye much easier and more thorough. In removing bodies from the cornea no more epithelium than the foreign body covers should be removed with it. Bodies may be removed from the lids with a cotton-wound toothpick, and from the cornea with a spud or blunt knife-point. All corneal cases I dress shut or covered (2 per cent. protargol in eye, gauze outside) for from six to twenty-four hours.

Spontaneous hemorrhages in the bulbar conjunctiva showing brilliantly red, look dangerous but are not. They disappear in a week or ten days.

Burns.—Alkalies like lye, lime, washing powder, etc., if dry, should be wiped out; or if in solution (ammonia also) probably are handled more expeditiously by washing out with warm water or milk. This also applies to acids and to such irritants as pepper, mustard, horse-radish, etc. The burn inflicted by flame, steam or electricity is all done at once and there is of course no object in irrigation. After-treatment of all eye burns is the same: bland antiseptic ointment (argyrol 10 per cent.) and atropin occasionally.

Sudden edema of the lids is generally rheumatic in origin and yields to treatment along that line. Dry heat locally helps.

Sudden amblyopias and *muscular paralyses* not associated with symptoms of disease elsewhere (for instance, albuminuria of pregnancy)⁴ cannot be adequately handled by the general practitioner and are scarcely emergencies.

SPECIFIC INSTANCES: EAR

The commonest emergencies for the ear are *foreign bodies* such as bugs, beans and buttons. Kill the bugs with any bland oil such as olive oil or machine oil and then wash out with warm water. Angular forceps are valuable for all foreign bodies. It may be advisable especially in children to give a general anesthetic.

Hemorrhage from the ear drum sometimes occurs as the result of indirect violence.⁷ Clots should be gently irrigated out, protargol instilled and gauze pushed into the drum. Do not use cotton. In cases where the drum has been ruptured by a toothpick driven in or similar object, treat in like manner.

If the doctor can do it, there is nothing that gives such immediate relief to an *acute suppura-*

tive otitis media before rupture as a cut into the drum made low down with an angular knife.

It hardly seems necessary to suggest that any *frost-bitten* ear (or nose) should be rubbed first with snow (if none, then with cold water) and kept away from heat until the circulation is restored. Later bland ointment and protection from the air.

Sudden facial paralysis should suggest ear disease⁸ and if present, treatment must be in that direction.

SPECIFIC INSTANCES: NOSE

Spontaneous nasal hemorrhages are sometimes terrifying to the patient or relatives and troublesome for the doctor. If the bleeding point can be seen, an application of silver nitrate (10 to 40 gr. to ounce) may stop it. If not, remove clots with irrigation¹⁷ of hot water as hot as can be borne (about 130 F.) and this may stop bleeding. Adrenalin dropped into the nose with the patient on his back may be tried or it may be snuffed up the nose from the palm, but avoid swallowing. If this fails, cocainize the best you can and pack with inch gauze bandage with a gauze packer. Do not allow it to stay in longer than ten to twelve hours.

If a *foreign body* is in the front part of the nose it can be removed with the angular forceps. If large, pushed well in and has been in long enough to have caused considerable edema of the tissues and become covered with mucus, it is not easily removed. Use cocain and adrenalin first, two or three times, then have the patient blow the side at fault; then try for it with forceps. There is danger of the body slipping back into the larynx from the nose at any time.

*Fracture of Nose.*²²—Only those with external deformity usually get any immediate treatment except for the hemorrhage. Replacement should be made with smooth sound or little finger inside and retention secured by (inside) greased gauze, packing with gauze packer, cork, metal or rubber, hollow splints and by (outside) lead or celluloid plates held by adhesive. The patency of each nostril should be made sure of later. In fractures of the nose patient should be cautioned not to blow the nose hard for a few days.

SPECIFIC INSTANCES: THROAT

Spontaneous Rupture of Tonsillar Abscess.—Opening is usually too small to furnish good drainage and should be enlarged. Peroxid gargle, a vigorous cathartic and salol internally may help to prevent further infection if pus was swallowed.

Foreign bodies in the throat (esophagus, larynx and trachea) constitute about as trying a class of cases as one can imagine. Teeth, plates, buttons, coins and corn in the esophagus are not so immediately dangerous as in the air tubes but

ultimately may become so. Do not use a probang. If the body is in or above the larynx, curved forceps will generally remove it; but if below the larynx, Jackson's esophagoscope or bronchoscope would better be resorted to. With young children, sometimes inverting them will cause them to cough the offending body out. A bolus of food and some large objects can sometimes be worked out with the finger, care being taken not to push the object down below the vocal cords. Any one case may do better until help arrives, sitting up, horizontal or with head very low. The old procedure of propulsion with water, bread, etc., may be tried for known smooth bodies in the esophagus. Pointed or large bodies would better be left for Jackson's instruments, or esophagotomy.^{12, 15} Tracheotomy may be necessary if case is going very badly.

Jackson says¹⁹ "36 per cent. of the foreign body cases that have come to me have been in a state decidedly the worse for the unjustifiable, obsolete attempts at removal, which moreover have failed to remove the intruder."

Fracture of the Larynx.—Rare occurrence.²¹ If much deformity, replace by external manipulation; cold to prevent internal swelling; forbid talking; rectal feeding; be ready for intubation or tracheotomy.

Dyspnea caused by *double paralysis of the abductors of the vocal cords* (recurrent laryngeal nerve) is amenable only to intubation or tracheotomy but fortunately does not usually come on suddenly.

Laryngismus stridulus is more likely to occur in young children, is a neurosis and though generally yielding to external stimulation like cold water or spanking, sometimes requires intubation or tracheotomy; anti-spasmodics later.

Edema of the glottis may require puncture, intubation or tracheotomy.

*Edema of the uvula*⁹ is caused by traumatism such as violent use of the voice, cautery, tonsil operations, etc., but scarcely ever gets bad enough to require puncture, although very uncomfortable for the patient.

Breech presentation with delayed birth has been helped out by tracheotomy.¹⁰

Intubation¹⁴ or tracheotomy^{11, 16} are about the only recourses for imminent suffocation when the diagnosis is in doubt or if other measures have been tried and have failed.

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SOME NOTES AND THOUGHTS ON CONVERGENT STRABISMUS; ILLUSTRATIVE CASES

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The following case was unusually interesting and instructive to me and I have thought it might contain a grain of interest to others:

Aug. 11, 1910, Richard M. T., —, aged 21, came from a neighboring state with an aggravated case of alternating, concomitant strabismus convergens. He said his eyes had always been crossed.

R. E. V. = 6/12 Near J. No. 50

L. E. V. = 6/9 Near J. 50

Tests showed that he fixed with either eye equally well and actually fixed with each eye alternately. Measurements showed 58° of strabismus convergens. He was a laborer and did not complain of any asthenopic symptoms. He was physically vigorous and well nourished. His eyes were distinctly prominent or bulging. He did not have cognizance of any diplopia. He did not have any stereoscopic vision, or sense of the third dimension, or depth. His fusion faculty had apparently never been developed. The strabiotic field of fixation was taken and is herewith presented.

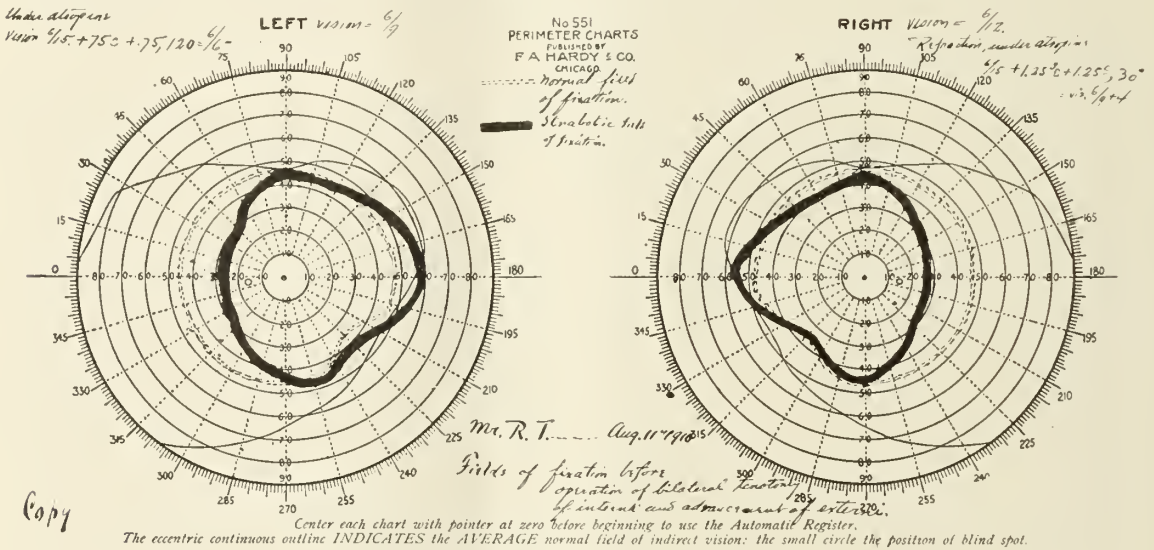
The patient was placed in a hospital and a double internal tenotomy was done by Von Michel's modification of Arlt's method. The technic is briefly as follows: a perpendicular incision is made through the conjunctiva by means of a forceps and scissors. The conjunctiva is next elevated to prevent the future unsightly sinking in of the caruncle which may

* Read before the Section on Eye, Ear, Nose and Throat Diseases of the Jackson County Medical Society, Jan. 5, 1911.

otherwise occur with the retraction of the severed tendon. The tendon is next grasped near its insertion with a sharp forceps and drawn gently away from the sclera, and the central portion of the tendinous insertion is carefully severed with the scissors, special caution being exercised not to perforate the sclera. A small squint hook is next inserted and used to hook up the tendon and capsule of tenon, and these are then cut as freely as necessary upward and downward until as much effect is secured as is desired or as is possible.

I was much surprised to find that complete tenotomy of both internal recti gave little or no correction of the strabismus. Adduction and convergence were apparently just as powerful and excessive after tenotomy as before. This was evidently due to weakness of the external rectus and an excessive predominant overaction of the

I followed the technic employed by Von Michel of Berlin, in doing the advancement. The tendon is exposed by a vertical incision through the conjunctiva 4 mm. from the limbus. Two sutures of No. 3 silk with a needle on each end are used. After inserting a hook the suture is placed by passing the needle through the border of the tendon from within outwards and carrying it through the capsular tissue and the conjunctiva. One is placed in the upper portion of the tendon and the other in the lower. The needle on the other end of the suture is next passed beneath the conjunctiva to near the vertical meridian of the ball and here the suture is anchored by stitching through the episcleral tissue. The tendon is next dissected free from its insertion and on tying the sutures the tendon can be brought up to the limbus.



Strabismic Field of Fixation of Mr. R. T. . . .

secondary adductors, the superior and inferior recti. In the position of extreme convergence present, the superior and inferior recti acted as powerful secondary adductors and the secondary abductors, the superior and inferior obliques, were by the same position prevented from acting. Edward Jackson's method of extended tenotomy could now have been employed; i. e., the incisions already made could have been continued partially through the insertions of the superior and inferior recti by severing the tendinous insertion at its nasal border and dissecting far enough to secure the desired result. The muscles are in this way deprived of the power of adduction and instead cooperate with the weak external rectus. In this case I thought bilateral advancement of the external recti would give the best attainable results so I did not extend the tenotomy to the superior and inferior recti but instead advanced each external rectus *ad maximum*.

The sclera should be freshened here by scraping to facilitate rapid union and early firm attachment of the tendon. Some skill is necessary to bring the tendon accurately forward on the horizontal meridian and to adjust the sutures with an equal degree of tension on each. A drop of atropin solution was placed in both eyes and they were bandaged for one week. During the first twenty-four hours after operation several doses of codein were given to relieve the pain which is always considerable. An uneventful recovery was made.

Immediately after completing the operation there was some divergence or over-correction, but by the time the bandages were removed the eyes had apparently perfectly parallel visual axes. This parallelism was maintained and the patient seemed to fix with both eyes simultaneously and did not experience any diplopia as I had anticipated he might.

Measurements of the refraction under atropin were taken as soon as the eyes could be exposed, with the following results:

Atropin cycloplegia:

R. E. V. = $6/15 + 125 \text{ C} + 125 \text{ C}$. Ax. 30 = $6/9 + 4$

L. E. V. = $6/15 + 75 \text{ C} + 75 \text{ C}$. Ax. 120 = $6/6 -$

Based on this the following lenses were made and put on at once for constant wear:

R. E. + .75 $\text{C} + 1.25 \text{ C}$. Ax. 30°

L. E. + .25 $\text{C} + 75 \text{ C}$. Ax. 120°

As this man returned immediately to his home quite a distance away and as I have not seen him since I have not had an opportunity to make any subsequent orthoptic tests, nor to test with the stereoscope and amblyoscope as to fusion and perspective.

Edmund Landolt says he has, as a result of frequently doing advancements, often had opportunity to observe the weakness of the external recti in these cases. This case verifies that observation.

The external recti were weak, thin and light and presented a marked contrast to the internal recti, which were thick, strong, heavy and powerful. This atrophic condition of the external recti is probably a result of disuse and non-development since these muscles probably remained thin and weak from childhood. The growth in size and strength of any muscle is of course absolutely dependent on the nervous impulses which it receives from the nerve center. The condition of a given muscle can be taken as a true record of the innervation which it has received. In the above case the external recti had not undergone normal development since they had not performed the excursions of free motion which they should normally have performed, nor had they counterbalanced their antagonists as they should normally have done. This atrophic condition would be the normal result of the imperfect lateral movements and of the very limited efforts at divergence in the sense of counterbalancing convergence.

I have mentioned that the eyes were naturally quite prominent. This tendency to exophthalmos was neutralized by the advancement of the external rectus, whereas it would have been increased by extended tenotomy of the superior and inferior recti.

In cases of less convergence than the foregoing but otherwise similar, I believe it would be advisable to abrogate the strabismus by a tenotomy of the internal rectus and advancement of the external rectus of the same eye rather than to do a bilateral internal tenotomy.

Advancing a tendon draws the eyeball deeper into the muscle cone, increases the range of motility and enlarges the field of fixation. It should be borne in mind that a tenotomy diminishes the adduction and weakens the convergence

in some degree and the total range of motility in the same amount.

The normal, abnormal, insufficient, or excessive contraction of a given ocular muscle is absolutely dependent on and totally inseparable from the nervous impulse which is transmitted to it from the motor nerve center. The coordinate, consensual equilibrium of the two eyes is purely a question of the adjustment of the balance of the nervous impulses which are distributed to the terminal muscular end organs in contra-distinction to any muscular deformity in the way of muscular contractures, or muscular relaxation, or malinsertion, as is sometimes thought to be the case in one form or another of strabismus.

Perhaps I can make this thought clearer by stating that a strabismus is not caused by one muscle being stronger, or shorter, or thicker than its antagonist, as a contracted internal rectus in strabismus convergens. It is necessary to appreciate the trophic influence of the nerve and to realize that the condition of the muscle, structurally and functionally, is absolutely and totally dependent on the innervation which it receives from its nerve center in the motor area of the cerebral cortex and which is reenforced, correlated, or modified as the case may be by its connection in the basal ganglia.

As was first shown by Donders, the nervous control over accommodation and convergence are linked together and consequently we need to look to refractive errors as the prolific *fons et origo* of ocular muscular anomalies. As so clearly elucidated by Edmund Landolt, the excessive innervation demanded by the ciliary muscles in hypermetropia induces a corresponding excessive innervation in the muscles of convergence, the right and left internal rectus. One must not lose sight of the fact that with the contraction impulse to one set of ocular rotators goes a relaxing impulse to the antagonists of the same. This together with the imperfect state of the fusion faculty and undeveloped sense of perspective such as is the case in infancy and childhood when these cases usually develop, constitute the originating and perpetuating etiology of strabismus.

William Zentmayer has recently investigated a large series of cases and reports hypermetropia as the cause of strabismus in 95 per cent. of the cases. He is a warm supporter of Donders' theory. Worth admits the close etiologic relationship that hypermetropia bears to strabismus convergens but considers the real cause to be defective fusion faculty.

Cauer of Stetten (*Archiv für Ophthalm.*, vol. 74) reports the cure of a case of strabismus by amblyoscopic exercises, without lenses and without surgery. Heredity should also be taken into account.

Herman Colin concludes from 2,000 cases of strabismus he has treated during forty years,

that there is an hereditary influence in 23 per cent. of cases. Sicherer has also traced hereditary transmission of strabismus (*Münchener Med. Wochenschrift*, Jan. 18, 1907). Wendell Reber's original studies show heredity in 50 per cent. of cases. Linn Emerson says "the one true and prime cause of both heterophoria and strabismus is a deficiency or absence of the fusion sense."

The etiology may correctly be said to include a number of things, such as hypermetropia, hypermetropic astigmatism, anisometropia, fevers, such as scarlet fever, measles, diphtheria and whooping-cough, violent mental disturbances, such as severe fright, injury during birth, heredity, and certain congenital defects, as congenital cataract.

In children under the age of 7, optical treatment alone is sufficient in about 75 per cent. of cases. This includes correcting the refractive error, atropin in the fixing eye with occlusion of it and training the fusion faculty with the Worth-Black amblyoscope and stereoscope.

To secure a parallelism of the visual axes and a beautiful cosmetic result by surgery is by no means the sufficient goal. An accurate estimation of the total error of refraction of both eyes should be made under atropin and this should be properly corrected with suitable lenses. An effort should be made if possible in these cases to secure binocular single vision by means of amblyoscope and stereoscope and also by cultivating the use of the non-fixing eye or of an eye suffering from amblyopia exanopsia.

In the foregoing illustrative case the tenotomies of the internal recti were probably rendered nugatory by the fact that the extreme inward rotation of the balls gave them over to an abnormal degree to the control of the secondary adductors, the superior and inferior recti muscles; and also to the fact that at the same time the action of the secondary abductors, the superior and inferior obliques, was practically abolished by the converged position of the eyeball. On reflection it will be seen that the external rectus, already weak, thin and partly atrophic, was deprived of the aid of the secondary abductors and the function of the divergence was therefore incapable of being reestablished even after complete tenotomy of the internal recti muscles.

Advancing the external rectus muscle now changes the position of the eyeball by rotating the cornea outward 6 or 8 mm. and thus at once partly delivering the ball from the control of the secondary adductors and bringing into play the secondary abductors.

The following case illustrates the powerful tendency of the eyes to cling to single binocular vision in cases where this is normally developed with full appreciation of perspective in a person with a vigorous nervous apparatus. This is a case of high hypermetropia and astigmatism with

reduced vision and gradually increasing symptoms of asthenopia in a young girl with normal stereoscopic vision, or sense of the third dimension. The eyes have never crossed and she has never seen double, she says. She was physically strong and well developed with good nervous equipoise.

Louise M. C., aged 10, weight 95 lb., brunette. Complaints of headache from her studies which is of a distinctly fronto-occipital character. Doing near work of any kind causes her eyes to become heavy, watery and aching. There is some photophobia and much difficulty from blurring of the vision and indistinctness of objects. She holds her book close to her eyes and her mother thought her near-sighted from this fact and also because she could see but imperfectly on the distant blackboard at school.

R. E. V. = 6/21. Near type J. 1.00

L. E. V. = 6/21. Near type J. 1.00

Refraction under atropin; measurements with ophthalmometer, ophthalmoscope and retinoscope and corrected and proved by reading tests with trial lenses and an artificial pupil showed the following:

Atropin cycloplegia:

R. E. V. = 3/60 + 8.25 \ominus + 2.75 C. Ax. 90° = 6/6

L. E. V. = 3/60 + 7.50 \ominus + 3.25 C. Ax. 90° = 6/6

Ordinarily there is great likelihood that a child with this much refractive error will begin to squint when 2, 3, or 4 years old, or almost as soon as efforts at accurate fixation of near objects are attempted. This is on account of the fact mentioned above that the nervous impulses to the accommodation and convergence are linked together. This union of accommodation and convergence deserves more specific emphasis. Evidently the cortical motor nerve cells from which emanate the nervous impulses which control the functions of accommodation and convergence are so thoroughly trained by habit and so strongly influenced by heredity that it is ordinarily very difficult to effect dissociation.

These functions are perfectly consentaneous in health and are with great difficulty separated in abnormal conditions. The muscles of accommodation and convergence contract synchronously as though but a single muscle controlled by a single nerve. Consequently when an abnormally strong nervous impulse is required in the ciliary muscle as a result of hypermetropia, or astigmatism, or both, a similarly excessively strong impulse is transmitted to the muscle of convergence.

As mentioned above, this originates convergent strabismus in most cases. If in conjunction with a hypermetropia there is faulty fusion and imperfect stereoscopic vision with absence of the sense of the third dimension, convergent strabismus will likely result. This condition is illustrated by the first case recited above in which a

faulty fusion and absence of stereoscopic vision probably determined the occurrence of the strabismus with a very moderate degree of hypermetropia.

On the other hand, when coordination of the eyes is perfect, the nerve centers stable, and the nervous apparatus strong and vigorous with a finely developed fusion sense and a full appreciation of perspective, the effort to maintain single binocular vision is so powerful that it is very difficult indeed to overthrow it. This is illustrated by the second case detailed above. In this case binocular single vision was maintained despite the enormous handicap of a vastly excessive hypermetropia. In this case had there been any defect or delay in the early development of the fusion faculty and of a fine sense of perspective, or any weakness or instability of the nervous apparatus of control and coordination, an aggravated case of strabismus convergens would inevitably have resulted.

ADDRESS IN SURGERY *

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A report on the progress in surgery must essentially aim at a general write-up of recent advances in surgical knowledge and information; and information, to be entitled to admission as evidence of advancement, must be supported with satisfactory proof from the practical and scientific standpoints. Therefore, in contemplating such a report it is obvious that one must go beyond his own limited experience and not be content to base a report on work accomplished by men of state or provincial reputation alone: he should endeavor to give a synopsis of what the world is doing for the advancement of surgery. Your time here would not admit of such an infinite array of matter as might be produced tending to show the real progress in the science and art of surgery not to mention a far more cogent reason for an abbreviated article on this occasion, namely, that I am about to make the report, therefore, as a self-evident fact, it will be brief and necessarily incomplete.

From our present-day standpoint the first real epoch in surgical progress was the discovery of surgical anesthesia by Dr. Morton, a dentist of Boston, who demonstrated the use of sulphuric ether as an anesthetic in operative surgery in 1846. About a year later Sir James Y. Simpson of Edinburgh discovered the anesthetic properties of chloroform in obstetric practice, also in surgery. It is superfluous to say that these important discoveries did much to stimulate and popularize surgical practice, thereby

"broadening the scope of the surgeon's usefulness, and was a real boon to suffering humanity." The advanced position gained by these two drugs as reliable general anesthetics has not been weakened during the succeeding decades; and to-day one or the other of them is depended on in approximately nine-tenths of all surgical work. True, there are exceptional cases in which a general anesthetic for various reasons is inadvisable and a local anesthetic is given preference; and cases are presented in which one of the newer anesthetics or a combination of two or more of the old and new is preferred to chloroform or ether alone. These deviations from the rule are most generally observed in the better appointed hospitals, where the necessary apparatus is at hand and the patient is in charge of a trained anesthetist. Some of the newer anesthetics, or combinations, are ethyl chlorid, ethyl chlorid and ether, nitrous oxid and ether, nitrous oxid and oxygen, chloroform and ether, gas, ether and chloroform, and the old A. C. E. mixture. There are a number of others, of questionable or negative value, the names of which will not be included in this list. What is here meant by a combination of two or more anesthetics is the practice of starting the anesthesia with one, then switching to another or possibly to a third. The advantage of some of the newer anesthetics as, for instance, gas and ethyl chlorid, is that the effect of the anesthetic is of short duration, and hence they are adapted to operations requiring but a short time, such as excision of tonsils, removal of adenoids or extraction of a tooth. A recent improvement or rather the revival of an old method, is the administration of ether by the drop or open method, which makes it safer especially in the hands of the general practitioner. Another and a very unique method is its administration by way of the rectum. I recently saw this method successfully demonstrated, the patient being first anesthetized by inhalation under gas, the anesthetic then transferred to the rectum and continued under ether. This method is peculiarly adapted to operative work in and about the oral cavity where the operation is necessarily prolonged. This would seem to be an ideal method in certain cases, provided that the details of the anesthetic can be perfectly carried out.

Local anesthesia continues to be in popular favor in all minor surgery and has to an extent with a number of operators largely superseded general anesthesia in some of the larger operations. Cocain, beta-eucain and sterile water are the most satisfactory of this class. Recent favorable reports on quinin and urea hydrochlorid give promise of future value as a local anesthetic. It has been found that a very weak solution of cocain, even a one-tenth of 1 per cent. solution, will often give good results with much less danger of poisonous effects of the drug. One emi-

* Report on "Progress in Surgery," read at the Thirty-Fourth Semi-Annual Meeting of the Southeast Missouri Medical Association, at Illmo, Mo., October, 1910.

nent surgeon within my knowledge is doing most of his hernia operations under one-tenth of 1 per cent. of cocain locally. Another, a rectal specialist, is doing many of his rectal operations under sterile water anesthesia.

Among other important contributions to surgical progress I should mention the x-ray and radium, vaccine and serum therapy, the revelations of the microscope, and the science of bacteriology. It has been demonstrated that the x-ray and radium, in certain operable and inoperable cases of malignancy, will cure or greatly aid the surgical measures employed. The same might be said of serum and vaccine therapy; as for instance Coley's serum for inoperable sarcoma and the antistreptococcic vaccines, the timely administration of which may sometimes prevent the development of surgical conditions.

Following the discovery of anesthesia the next real step constituting an epoch in the advancement of surgery was the promulgation by Sir Joseph Lister and his associates of the so-called germ theory of inflammation and disease. Continuous and persistent investigation on the part of numerous laboratory workers and biologists, with the assistance of the microscope, has removed every theoretical doubt of the micro-organic pathogenesis of disease.

From the biologic and pathologic standpoints the introduction of antitoxin, vaccine and serotherapy is in the line of a natural evolution. Also as an outgrowth of studies in bacteriology and the germ theory of infection and inflammation evolved the antiseptic treatment of wounds and later the aseptic surgery of the present day.

The advent of antisepsis and asepsis, as many of you will remember, gave great impetus to surgery everywhere. During my college days, only twenty years past, one of our professors lectured rather incidentally on abdominal surgery; but I am frank to admit that during my entire medical course I saw not a single laparotomy and we students regarded that branch of surgery as somewhat of an invented story and beyond all hope of realization in actual practice. Now, any good anatomist with some experience and a little surgical training will open the abdomen with impunity, with due thanks always to the protection of asepsis or surgical cleanliness. In this connection I should say that perhaps the greatest advancement in surgery in recent years has been that of internal surgery, or surgery of the abdominal and pelvic viscera. The literature abounds in reports of gastro-intestinal surgery, of work done on the gall-bladder, kidney and prostate gland.

The old moot question, when to operate in appendicitis, has apparently been permanently settled, and it is the consensus of opinion that, if the case is early in the hands of a surgeon, it should be operated during the first twelve hours after the initial attack, provided that a

positive diagnosis can be made. In the hands of the general practitioner, and especially in the rural districts remote from hospital facilities with no surgeon at hand, it is perhaps better to wait for abscess formation—for Nature's walling off process—at which time a drainage operation can be done with a fair degree of safety. However, we must understand that appendicitis does not always run a clear cut, well defined course. Far from it. In a small, uncertain per cent., we have fulminating developments, an explosion, usually due to sudden perforation or a gangrenous appendix. These grave symptoms may supervene very early, even during the first twenty-four to forty-eight hours after the initial attack. When symptoms of such complications are apparent the physician and the surgeon must prepare for an immediate operation in order to give the patient the better chance for his life. I am not an adherent of the so-called Ochsner method for this class of cases. The method seems to have been successful with Professor Ochsner in his large hospital experience and it will doubtless apply to exceptional cases in every physician's practice; but from my limited information I am constrained to believe that the waiting method, as advocated by him, is an unwholesome doctrine and fraught with grave potentialities if construed too literally by the general profession, thereby retarding surgical progress and the best interests of humanity. Still, I believe the method with the discussion pro and con has not been in vain; for it has served to bring out the strong points of both sides of the proposition to the better enlightenment of all.

In recent years much progress has been made in gastro-intestinal and gall-bladder surgery. Formerly these regions were rarely invaded except in emergency cases, cases when life was in immediate jeopardy. Now many operations are done not alone to prolong life but in order to give comfort to the patient, as for instance cholecystotomy for chronic gall-stone disease and gastro-enterostomy for chronic gastric ulcer. These and kindred operations have a broad field of usefulness and especially does this apply to gall-bladder surgery, due to the general prevalence of gall-stone disease and its complications.

One of the most unique operations in all the domain of surgery is the one known as renal decapsulation, or Edebohl's operation. The field of its employment is, however, somewhat restricted, being resorted to principally for certain cases of chronic nephritis. Professor Edebohl, who was its enthusiastic advocate for many years next preceding his death, used this operation very extensively and in favorable cases with apparent great success. The operation is also recommended in certain cases of sudden cessation of the renal function involving great tension of the kidney, such conditions as we would find in obstinate eclampsia or acute uremia. To

account for the cure or improvement gained from the operation the theory is advanced that splitting the capsule relieves the tension thereby permitting an increase of blood to the kidney—an artificial hyperemia, so to speak—with the result that the damaged organ is regenerated, with a restoration of the lost or failing function; all of which is very plausible and a part doubtless true.

A kindred operation to Edebohl's kidney decapsulation is the Talma-Morrison operation for cirrhosis of the liver. The technic of this operation is to denude the surface of the liver, then, with sutures, bring the omentum, the parietal peritoneum and other contiguous structures, also denuded, into approximation with the liver surface. In consequence adhesions are formed which divert the portal circulation from its natural channels into that of the general circulation. The good results of the operation are supposed to be due to the increased vascularity or the vicarious circulation of the liver, which overcomes the hepatic engorgement, offers better elimination of the toxins, improves the nutrition of the diseased or partially destroyed liver cells, the latter undergoing a compensatory hyperplasia which enables them better to perform their function, with the ultimate result that the ascites—a most constant and troublesome condition—gradually subsides.

Of a collection of 227 cases reported by Sinclair White, 37 per cent. was cured, 13 per cent. improved, 15 per cent. failures and 33 per cent. resulted in death. It is suggested that the cases for operation should be carefully selected, that far advanced cases of cirrhosis or cases associated with pulmonary, cardiac or renal complications should not be subjected to this operation. To summarize on the Talma-Morrison operation for hepatic cirrhosis and the Edebohl's decapsulation for nephritis, I will simply add that in the hands of the competent diagnostician and skilful operator these two operations furnish a weapon of last resort which will probably prove effective in 20 to 50 per cent. of properly selected cases, such cases as we would reasonably consider almost certainly fatal under the usual internal medication.

Much good work is now being done in thyroid surgery. Where the operation of thyroidectomy was formerly done in rare cases only and by a very few men, now the indication for the operation, its probable results and its possible sequelae are being studied and are better understood by the surgical profession to the great benefit of the unknown numbers of thyroid sufferers. It has been established that the thyroid and other ductless glands have much, or all, to do with the nutritive, or trophic, processes of the human economy. We are all familiar with the more common symptoms of cretinism and myxedema, which diseases are unquestionably due to a diminished secretion of the thyroid gland. We

are also familiar with the symptoms of Graves' disease, such as tachycardia and the various nervous phenomena. We understand that this disease is due to an increased or perverted thyroid activity.

A good authority in a recent argument places dementia præcox, or adolescent insanity, in the category of Graves' disease, as due to increased thyroid secretion. Other good authorities substantially claim that the parathyroid gland is scarcely less important to the normal physiology of man than the thyroid itself; and testimony is produced to prove that tetany and perhaps eclampsia and idiopathic epilepsy are dependent on an insufficient secretion of the parathyroid gland.

In the light of the present knowledge of the functions, abnormalities and diseases of the ductless glands, it would seem that there is yet much to learn regarding these organs and the important rôle they play in regulating the human machine. Continued investigation and research may well be expected eventually to open up this rather obscure field. For the present the surgeon must act on the best information at hand, and in operations on the thyroid gland it behooves him to pay due heed to the common injunction, namely, to conserve a part of the thyroid body, and in so doing be very careful to leave intact and undisturbed the entire parathyroid glands and tissue.

Nowadays we read much of the alcohol injection treatment of trifacial neuralgia. Those of you who have been in practice for a number of years will agree with me that a genuine, uncompromising case of tic douloureux is a constant bugbear to the peace and happiness of the medical attendant. In the milder cases, with long intervals of quiescence, the ordinary medicinal treatment has given fairly satisfactory results; but the pronounced and more obstinate cases are the ones usually referred to whenever the subject is under discussion.

After all possible causes had been removed, and persistent medicinal treatment had proved ineffectual, the surgical measure usually employed was a resection of the offending branch of the trifacial nerve, care being taken to penetrate the foramen in order to make as clean a delivery of the nerve as possible. In extreme cases where all three branches were involved and the condition also possibly involved a lesion of the Gasserian ganglion, there was nothing left to do but a resection of this ganglion, which is a major operation involving a risk of perhaps 50 per cent. mortality. These conditions are now being successfully treated with alcohol injections into the sheath or substance of the nerve at the exit of the diseased peripheral branches from their respective foramina. In the more severe cases deep injections through the foramen ovale are made directly into the Gasserian ganglion and the deep branches

of the trigeminus. This treatment has given highly satisfactory results when compared to other operations of previous or present use. From one to four injections are usually sufficient to give relief or effect a cure. In a small per cent. of cases there is a recurrence of the neuralgia in from six to twelve months; however, a repetition of the treatment during such relapses, from time to time, will eventually effect a permanent cure in nearly all cases. The injections are made under local anesthesia and are not difficult or dangerous, except that the injections into the ganglion and deeper branches should not be undertaken by one who has not previously worked out the technic on the cadaver and who has not at hand all the advantages of an up-to-date surgical service.

I would not feel that I had done my full duty to bring this feeble effort to a close without calling attention with some emphasis to the wonderful amount of work which is now being done along special surgical lines, with great and lasting benefit, especially to growing children, namely, naso-pharyngeal surgery, consisting of the removal of adenoids and diseased or hypertrophied tonsils. The importance of this branch of surgery to the physical and mental development of children can hardly be overestimated. Almost invariably good results follow operation and in many instances these afflicted children are literally transformed into new beings, due to the removal of adenoids and tonsils. Other pathologic or abnormal conditions, such as enlarged turbinates, polyps, ridges and spurs, are present in the nasal passages. These conditions, so prevalent in childhood, the proper treatment of which is too often neglected, are responsible for, in fact, the progenitors of the naso-pharyngeal troubles frequently found in adult life. Accessory sinus disease fairly illustrates what I mean. With all the present-day enlightenment on rhinologic conditions and diseases, does it not behoove the practitioner of medicine to cease telling his patients that they "have catarrh," and that they "must have a spray," and with that said and done to discharge such patient? Would it not be more scientific, more professional and more honest in every way to make a thorough examination, determine the condition and tell the patient that his so-called "catarrh" is due to tonsils, adenoids, turbinates, sinus disease, or some other particular or specific condition which is usually curable under proper surgical treatment?

Of interest alike to the surgeon and physician the information just reaches us that we shall probably have in Ehrlich's product, "606," a specific in syphilis: a single treatment of which often effecting a cure in many obstinate cases. The Germans very generally are producing enthusiastic reports; and they predict that "606" will prove to be as much a specific in syphilis as is quinin in malaria. Owing to the scarcity

of the product in this country, the reports are as yet very meager; but Nichols and Fordyce, who have tried it in a series of cases in the New York City hospital, Blackwell's Island, in a recent report (the *Journal of the A. M. A.*, Oct. 1), give results which are very gratifying, and encourage the belief that "606" may revolutionize the treatment of syphilis and parasyphilitic conditions. To those of you who failed to read the above report I commend it for a careful consideration.

Before closing this discussion, there is one more subject which appeals to me as opportune on any occasion of scientific interest. The operation of vasectomy, or resection of the vas deferens, and its ultimate possibilities are of interest not alone to the physician and surgeon but should be, and are, from a medicolegal and moral standpoint, of great concern to the criminologist. This operation was originally devised for the treatment of prostatic hypertrophy; but after a somewhat extended experimentation by a number of operators the early promising results were not fully sustained by later developments and the operation was soon abandoned for this purpose. In recent years the operation is being taken up and advocated as a most efficient means of emasculating certain classes of criminals. Indiana has a statutory enactment which authorizes this procedure in certain prescribed cases of the criminally degenerate. Hundreds of these cases have been thus legally operated under this law and with apparent satisfaction. The argument is advanced that the operation is altogether humane. Impotency does not follow as a result of the resection of the vas but the ability of the subject to procreate is forever eliminated. The operation, as done by the specially appointed Indiana authorities, is simple in the extreme. Local anesthesia is used and the subject is usually permitted to take up his regular duties immediately following the operation.

As a final word on the subject of legal vasectomy, I would suggest that this advancement, from the surgeon's standpoint, is not of great technical significance, but that the unexpected application of this small but beneficent operation is worthy of favorable mention, I hopefully believe you will freely concede.

RESECTION OF THE LARGE INTESTINE FOR MALIGNANT DISEASE *

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Carcinoma is more frequently in the lower than in the upper part of the intestine. According to Sutton, in every 100 cases of intestinal cancer, seventy-five occur in

* Read in the Surgical Section, Missouri State Medical Association, Hannibal, May, 1910.

the rectum, twenty-three in the large intestine, and two in the cecum. Of those occurring in the large intestine three are found in the hepatic flexure, four in the splenic flexure, ten in the sigmoid flexure and four elsewhere in the colon. All authorities agree that, next to early diagnosis, surgical interference and a thorough operative removal is essential for a cure. Mayo¹ reports 100 resections of the large intestine, sixty-three of which were for malignant disease, with eight deaths. Twenty-four involved the cecum and ascending colon, seven the transverse colon, two the hepatic and splenic flexures and thirty the sigmoid.

Gibbon² reports ten cases, eight for carcinoma with five deaths. Smith³ reports two cases with two recoveries. Atherton⁴ reports one case, recovery.

During the past four years I have operated on five cases of carcinoma of the colon, in two of which the colon was sidetracked by anastomosing the small intestine with the sigmoid. In the other three cases a resection and anastomosis was done, and it is the last three cases which furnish the title of this contribution. The incision was made, where the growth could be located, directly over the tumor, otherwise in the median line. In all cases a large incision was found to be necessary to give free access to the growth. In Case 2 the gut was easily accessible and the resection and anastomosis done outside the belly, while in Cases 1 and 3 a preliminary draining of the intestine was done. In all my cases the stomach was emptied previous to operation and free use of saline enemata resorted to. In every case the peritoneal reflection from the abdominal wall was divided and the part drawn outside the abdomen where it was surrounded with aseptic pads. The anastomosis in Case 1 was lateral, in Cases 2 and 3, end to end. In Case 3 there was a marked obstruction and distention. The tumor with the mesentery and glands detached was drawn out of the wound and the proximal and distal loops united by sutures. The peritoneum was united by sutures to the limbs of the intestine. A small incision was made in the exposed mass proximal to the obstruction and a tube introduced, through which the intestinal contents were carried to a receptacle. The tumor with the attached intestine was cut away on the fourth day.

Moynihan says in cases of acute obstruction, no attempt to resect the growth and to perform immediate restitution of the canal is justifiable, but that acute obstruction of the cecum is rarely caused and therefore in almost every instance a resection and immediate suture of the divided ends has to be performed. However, in two of my cases an acute obstruction existed and in both the two-stage operation was done.

Case 1.—J. P., 60 years of age, Rebekah Hospital, February, 1907. Diagnosis, acute obstruction due to carcinoma of sigmoid. Resection in two stages, operative recovery, death three months later.

Patient gave history of gradual loss of flesh and strength during the past year, weight having decreased from 194 to 135 pounds since July, 1906. For two days absolutely nothing had passed by the anus, the patient had vomited and distention had increased greatly during the previous night. There was pain over the abdomen, involving especially the left umbilical and hypogastric regions.

An indistinct hardness could be felt above the iliac crest, but so great was the distention its mobility was not determined. The belly was opened by an incision to the left of the rectus muscle and a growth as large as two fists readily found. The colon was much distended as were the small intestines, and after delivering the mass, which was done not without great difficulty, a trocar was inserted into the distended colon and the gas allowed to escape. The mesentery was ligated, several glands removed and the proximal and distal ends of the affected loops stitched together, the parietal peritoneum sewed around the two limbs and abdominal wound closed. The tumor was surrounded by rubber tissue, a gauze dressing applied and patient put to bed. I had intended waiting until the following day to remove the mass, to give time for complete resealing of the peritoneal cavity, but after the elapse of nine hours the abdomen became so distended that I applied forceps to the two limbs of the loop and removed the tumor, the proximal end of the gut left about two inches long, the distal on a level with the skin. A glass tube was ligated through a buttonhole incision and drained the bowel. Twenty days later the abdomen was opened, the artificial anus excised and lateral anastomosis performed and abdomen closed. Patient made a good recovery, though died twelve weeks later from recurrence. Pathologic diagnosis, adenocarcinoma.

Case 2.—Female, 54 years of age, Rebekah Hospital, May, 1907. Diagnosis, partial obstruction due to carcinoma of colon. Resection of sigmoid; immediate anastomosis. Recovery.

The history of the trouble extends over several months during which time patient had attacks of severe abdominal pain, marked paristalsis followed by distention of abdomen and absolute constipation.

The first two attacks subsided after a few hours, but the last had persisted several days though during the attack gas had at times passed by rectum. Two weeks after the third attack examination revealed a mass in the left iliac region which was movable and slightly painful on pressure. I opened the abdomen about three inches above the outer end of Poupart's ligament, immediately over the tumor and found a mass larger than a small turkey egg and freely movable. This was withdrawn from the belly cavity, clamps applied obliquely, the gut cut across above and below, a triangle area of mesentery removed and an end to end anastomosis done.

Patient had an uneventful recovery. Pathologic diagnosis, adenocarcinoma.

Case 3.—M. C., female, 68 years of age, Rebekah Hospital, September, 1908. Diagnosis, acute obstruction, resection, two stages, recovery.

The case was referred to me by Dr. H. H. West. She had complained of constipation for several months, though until three days ago seemed quite as well as usual. At that time she complained of pain in the left umbilical region followed the next day by vomiting and absolute constipation.

When I saw her three days after the onset distention was great and vomiting almost constant. So great was the distention no effort was made to recog-

1. *Ann. of Surg.*, July, 1909.

2. *Ann. of Surg.*, September, 1909.

3. *Ann. of Surg.*, September, 1909.

4. *Canada Lancet*, Toronto, 1908.

nize the cause of the obstruction. The abdomen was opened by an incision in the middle line, the lower end of which was above the umbilicus; the intestines were greatly distended, the descending colon and sigmoid flat. Situated to the left of the median line in the transverse colon a mass about the size of an English walnut was to be felt. A second incision three inches to the left was made and the first incision closed. After ligating the mesentery and freeing the bowel well beyond the growth in both sides the tumor was delivered. A glass intestinal drainage tube ligated into the bowel and the tumor cut away, the ends of the wound were brought together with through and through silk sutures. The artificial anus was closed four weeks later. Patient discharged well. Pathologic diagnosis, adenocarcinoma.

THE EVOLUTION OF THE TRAINED NURSE

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With the creation of human life the cardinal attributes of the natural nurse—love, sympathy and the care of the sick and helpless—were born. Century after century has rolled by: homes, families, communities and nations have been visited by disease, pestilence, war and destruction, and yet these many occasions have found only the instinct of the mother, the help of the friend, or the occasional spark of human sympathy of the stranger spontaneously enlisted in the work of relief.

The progress of civilization, the evolution of science and the development of the humanitarian have created a new era, a higher standard, a worthier enlightenment, and have finally made possible the creation of the trained nurse. To our own century, almost to our own day, belongs the honor and the credit for this grand triumph of humanity. Nearly sixty years ago the first idea of a system for carefully training nurses originated in the fertile brain of Florence Nightingale, a woman of refinement, brilliant attainments and forceful mind, who devoted ten of the most active years of her remarkable career in preparing herself for this greater work of reform which has given rise to an institution representing to-day one of the most valuable advances in humanitarianism—the trained nurse and the training school.

War, the organized, systematic wounding and slaughtering of men, has been largely the occupation of the world throughout the barbarous and semi-barbarous ages of the past and almost to our own time. Three centuries ago a semblance of system was developed and supported by the state for the care and relief of the wounded soldier. The next step in this evolution was the sanitary and surgical service in armies, as developed by the efforts of the medical profession. Even during the Napoleonic wars, which almost

touch the border-line of contemporaneous history, no hospital system of any consequence had been instituted for the sick soldier. With the dawn of the nineteenth century and its spirit of humanity, a new and a better world was born. When the great war of 1853 broke out between Russia and the allied powers, sympathy for the common soldier was aroused as it had never been before in all the ages. When the English armies set out for the Crimea and the story of the sufferings of the soldiers in the field poured into the British press, the heart of England was stirred to its depths and the government realized the imperative necessity for more humane relief. The British minister of war, appalled by the awful disasters in the Crimea, wrote Florence Nightingale, then in charge of a London hospital, asking for help. A few days later she, with forty devoted women companions, set out for the scene of war. This was the nucleus of the trained nurse in the field; this handful of women, soon augmented by 300 companions in the Crimea, were the living angels of that battle-field. The world knows how order was brought out of chaos in the camp-hospitals, how the scope of the busy army surgeons was broadened, how the hope of the wounded soldier was buoyed up by these self-sacrificing women, and how Florence Nightingale and her trained and faithful companions wrote name and fame in the world's history and demonstrated the possibilities of relief, the latent power for work, and the tremendous impetus for good that had lain dormant and smoldering in the heart and mind of women, waiting for an opportunity and a cause in which these sparks could be fanned into a flame by which the whole world of progress and of humanity might be warmed and illuminated.

At the close of the war in the Crimea, in 1856, a fund of \$250,000 was subscribed for the purpose of enabling Florence Nightingale to form an institution for the training of nurses, this fund to be spent in training a selected class of women at St. Thomas's and King's College Hospitals. Thenceforth the influence of the training schools for nurses began to be felt. Like many of the great movements developed in the cause of humanity the progress of the training schools for nurses and the education of the trained nurse was slow, and nearly twenty years were required for the effective, practical development of this pioneer institution.

Another institution which was the direct outcome of this pioneer work is the society of the Red Cross under whose banner every country in Europe is to-day enrolled. Coupled with the remembrance of the sick and wounded soldier is the name of Henri Dunant, in whose humane and sympathetic heart first stirred the thought of the organization of such an institution among all the nations, bound by solemn agreement to prevent unnecessary suffering in times of war.

* Valedictory address delivered at the graduating exercises of the Jewish Hospital Training School for Nurses, St. Louis, May 25, 1910.

The white flag with the red cross, through the efforts of Henri Dunant and his active coworkers in this cause of humanity, soon became the neutral ground of the battle-field. Here the surgeon and the nurse of the Red Cross were allowed to work side by side unmolested: the insignia of the Red Cross was held as inviolate as the white flag of truce. In 1864, the Conference of Geneva was held and here was established the truce of nations in the cause of humanity, and the camp over which the flag of the Red Cross fluttered has been known ever since as the neutral resting place of the wounded soldier.

Even for this grand organization there was another and wider-reaching destiny: at the outbreak of the Civil War in our own country, Clara Barton, then a young nurse in Washington, became the living exponent of the work of the society of the Red Cross of our own battle-fields: a woman of unusual ability and discretion, quiet, self-contained and resourceful, she made her influence felt almost before the heavy guns of this great strife had reverberated through the land. But Clara Barton had a greater mission, a wider field of endeavor in which the flag of the Red Cross was to be planted. She it was who familiarized the American people with the treaty of Geneva: yet more—she it was who after years of indefatigable and patriotic devotion finally led to the formation of the Red Cross Society of America, greater in scope, broader in its humanity, more splendid in its achievements than even the larger organization of nations bound together at the Conference of Geneva; for in the Old World the Red Cross has maintained its first purpose—that of caring for the wounded and the sick of belligerent armies; the Red Cross Society of America, true to the democratic ideals of our glorious land of liberty, includes in its wider scope the relief of suffering in times of great national calamity, visitations to which we are peculiarly geographically liable. The great forest fires of Michigan, the floods of the Mississippi, the Texas drought, the Charleston earthquake, the Johnstown disaster, the Galveston flood, the San Francisco catastrophe, found our American Red Cross Society at its post of duty, and the standard-bearer of this grand army of relief was our own Clara Barton.

To these two pioneers, Florence Nightingale in England and Clara Barton in America, and their co-workers, is also due not only the birth of the trained nurse and the institution of the training school, but their general recognition by the world as factors for its welfare and advancement.

The medical profession, at first sceptical as to the advisability and practicality of this movement, soon became its most ardent advocate. The advent of the trained nurse in hospital service became a new and important epoch in the evolution of medical and surgical practice. With the discovery of some of the greatest blessings that

had been given to mankind by the world of science—anesthesia by chloroform and ether, the use of antiseptics in surgical practice, the discovery of the bacillus of tuberculosis and the introduction of the antitoxin for diphtheria—there was providentially born to the world an added blessing of which we have still to realize the value, the comfort and the great possibilities for good—the trained nurse.

The training school for nurses is a living, forceful exponent of the new religion—the religion that unites all creeds and all people into a common brotherhood for good—the religion of deed, not creed.

A well-organized nurses' training school is one of God's most beautiful temples for instruction in practical religion. The training school of to-day, like the nurse herself, is undergoing many stages of development, and important changes are being suggested and made from time to time; much can be crowded into the three years of service to which a nurse pledges herself when entering the training school. We should scarcely do credit to the aptitude and intelligence of woman if we admitted that the three years' course of training consisted only of the proper way to make beds, move the patient without wasting his strength, prepare poultices, record temperature, pulse and respiration, learn the use of the catheter and hypodermic syringe, and carry out such other bedside instructions as may be directed by the physician. The nurse, like the poet, is born, not made: every mother, every daughter, every woman with her heart in the right place, is a natural nurse, but the proper custodians of the sick and the injured require special training by competent instructors in the school of experience.

The great danger of any system of education is to overestimate the theoretical and to underestimate the practical. Almost any reasonably intelligent and conscientious woman may be trained to a state of efficiency as a technical nurse, just as a fairly intelligent man may acquire the recognized diploma of the physician. Yet there are nurses and physicians who may have made a satisfactory record in their undergraduate work, but when brought face to face with the practical problems of their field, dependent on their own resources, will fail. On the other hand there are nurses and doctors whose scientific attainments may be limited but whose peculiar adaptability to the work to which they have been pledged makes of them more serviceable and successful factors in their respective callings, in their work at the bedside, in the home and among the people.

The medical staffs of the larger hospitals throughout the country where training schools for nurses form an important part of the institution, are seriously considering changes in the time of service of the nurse in the training school

and the character of instruction which is imparted. In a number of large eastern hospitals the term of the service of a nurse while in the training school has been reduced from three to two years and much of the distinctly medical and scientific part of her instruction has been adjusted to include only the most essential features that may have a direct bearing on her work.

The nurse is the aid to the physician; her work is seldom done independently but consists of the intelligent execution of his orders. We concur in the opinion frequently expressed by professional confrères of wide experience, that the nurse need not be taught the names of the numerous muscles of the abdominal walls, the intricate physiology of the thermal centers in the brain, or the minute anatomy of the ear, in order to make her better fitted for her work. While I would not depreciate the requisite medical training in the nurse's curriculum, yet it is possible that we have overestimated the amount of such knowledge necessary for the purpose. If this were generally conceded what then should constitute the term of service in the training school? In other words, the instruction in the training school should be limited to subject-matter pertaining only to nursing, and the time now devoted to acquiring knowledge of the more serious medical science which forms part of the curriculum should be spent in practical work at the bedside, in the diet kitchen and in the operating-room; the course in the training school could then be practically reduced to a shorter period. True, there are added responsibilities incumbent on nurses who take up special fields of work and such special training may be acquired as post-graduate work in the hospitals and in classes specially provided for such purpose.

We are discussing especially the education of that larger class of nurses who are sent out into the community with well-trained minds and hands to be a comfort and a help to the sick and injured, and here we face another problem, perhaps still more difficult to cope with. To-day the private nurse is a luxury possible only to the rich; the poor man and the pauper are provided for by the community; hospitals care for him and the gentle hands of the nurse soothe his aching brow and minister to his comfort; but what of the homes of the thrifty masses when invaded by the misfortunes of accident and disease? To this larger class the model nurse of to-day, with her three years of practical experience and efficient training is impossible; her fees of \$4 per day or \$25 per week are prohibitive to the clerk with the limited income and to the wage earner of large family, honest, and thrifty, with hearts that beat just as strong for their own and impulses to do the best they can for their sick and afflicted. In the evolution and development of the training school no plan has yet been devised by which this predominant class of the

community may also participate in the benefits and the blessings which accompany the trained nurse.

A young woman who has been conscientiously trained and qualified as a teacher in the splendid public schools of our metropolitan cities is required to serve an additional apprenticeship as a substitute teacher on limited salary; as she acquires larger experience from year to year she becomes a more useful member of the teaching corps, and a form of civil service has been developed by which the number of years of work and the efficiency of such work regulate the remuneration to which she may be entitled.

How many young doctors, recently graduated, can charge a substantial fee for a consultation, or a maximum fee for operation in the first few years of their professional career? Experience and time of service are factors to be reckoned with in every sphere of labor in the consideration of the financial value of work. There seems to be one exception to this rule and that is the trained nurse; from the day that she acquires her diploma she expects the same kind of service and the same fees as the nurse who has had years of experience in the broader school of active professional work. In scanning directories of registered nurses you will occasionally find this startling legend opposite the name and address of even recent graduates: "for \$25 cases only." It matters not that her older and more experienced sister has been devoting her energies to her calling for many years and now claims her rightful position as a \$25 nurse; she, the junior, steps immediately before the public asking the same fees and the same privileges. The thoroughly competent nurse, especially when assigned to difficult cases, is not over-paid, but she has been enlisted and has pledged herself to the cause of humanity, and when such a distinct evidence of a mercenary motive becomes apparent, she lowers the standard and plane on which the ideal trained nurse has been placed.

If the time of service in our training schools could be reduced to two years and it could be further decreed that one year's additional time be devoted to practical apprenticeship and that the recent graduate receive during this time a more moderate remuneration for such service, a manifold purpose could be accomplished: the nurse would acquire additional confidence and added experience in such private service; many families not in a financial position under present regulations to avail themselves of the services of a well-trained nurse, could enjoy this comfort; the shorter course of training would attract a larger number of intelligent women to take up this work who at present feel that they cannot spare the time for a longer training from a practical career which at best may not extend beyond a period of ten or fifteen years of most active service; and finally, the relation of the

trained nurse to the community must in its evolution respect the same law of supply and demand that is to be found in every economic work. We should find, therefore, if the course of training is reduced, if a larger number of women enter the training school, and if in consequence a larger proportion of such skilled labor is offered to the public, the law of supply and demand would take care of the people as well as of the skilled laborer, and instead of the prohibitive prices of the favored few this blessing would be vouchsafed to the many.

Commercialism should be as foreign to the ideals of the nurse as to those of the physician. When a mercenary spirit pervades the profession of the trained nurse, or of the physician, or of any other worker whose life is largely dedicated to the service of the public in time of need or sickness, it threatens to undermine even the humane foundations on which these splendid institutions for good are gradually being built. The motto of the nurse should be: "Do the public good," not "Do the public—good."

Members of the graduating class, it is as easy and delightful a task for the valedictorian to sing the praises of the nurse, or paint her ideally in word pictures of glowing colors, as it is for the nurse to bask in the sunshine of the luxurious homes of the rich in the enjoyment of a lucrative clientele in private nursing; it is equally as difficult and irksome for the valedictorian to attempt to point out some of the defects and shortcomings of the system and guild to which you are dedicated as it is for the nurse in her more humane and charitable spirit to administer frequently in private nursing to the wants of the poor man and to those in more moderate circumstances. The critical attitude which I have taken in the discussion of this important problem is not an iconoclastic one; I would not detract an iota from the splendid ideals which are intimately woven into the fabric of your noble calling; it should be the honest effort of every man conversant with the conditions and the necessities of this grand work to contribute his mite to its upbuilding, and the psychologic moment for the improvement of some of the existing misunderstandings by the public of the real worth and function of the nurse, is now.

You have been especially qualified for your life's work; you have enjoyed the privileges of training in an institution conducted on unselfish and most charitable planes; you have had the advantages of instruction offered by competent and experienced teachers; the rank and high standard which your Alma Mater holds in the community to-day is an "open sesame" to every nurse graduated from the Jewish Hospital of St. Louis. You have traveled the main road under careful guidance for three years; you have reached the parting of the ways; there are four roads from which you may choose the route to

your further usefulness: private nursing, hospital or institutional work, district nursing and the Army or Red Cross service.

Perhaps the most practical and lucrative route is that of the private nurse, yet every graduate will not be a successful private nurse, for there is a peculiar adaptability needed for this work, the main characteristics of which are independence of thought and action and an acceptable personality to the fastidious private patient. Institutional work differs somewhat from private nursing in that the responsibilities carried on the shoulders of the individual nurse are not as heavy and exacting as those of the private nurse; both have their difficulties and their advantages and each nurse must judge whether her qualifications best adapt her to one or the other form of work. District nursing is the worthy field of the ideal humanitarian; the employment of district or visiting nurses is receiving the active attention of charitable institutions in every municipality that assumes the responsibility of caring for the sick and needy of the poorer classes. What a splendid untrodden path for the energetic, high-minded, well-trained, good-hearted graduate. The district nurse is rapidly becoming an important factor in our own communal work and though this is but a recent innovation in our local organizations the influence of this good work is already being keenly felt.

In this country, thank God, the army nurse is not often called into service but with her sister of the Red Cross she should stand ready to go to the front when the cry for help is raised.

Inscribe on the tablets of your memory these qualifications for the successful nurse: cleanliness, cheerfulness and kindness; promptness, thriftiness and common-sense; armed with these attributes, together with a good training, good health and goodwill, every nurse must succeed.

Your field is the wide world; your cause, humanity; your work, a life of charity and good deeds; your ambition, the loftiest ideals of womanhood, bringing comfort and blessing into every home where duty calls.

GASTROPTOSIS *

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The understanding of the clinical entity which we nowadays term as gastroptosis has chiefly been obtained by a thorough study of the normal topography of the stomach. This seems to be a rather simple and superfluous statement, yet let us bear in mind that it required numerous laborious investigations to find approximately correct data about the normal position of this organ. And still we must admit that a wide limit of

* Read at the meeting of the Jackson County Medical Society, May 17, 1910.

individual variations must be allowed to the stomach with reference to its location. Not only in different people but even in the same individual the borders of the stomach may vary. The position of the stomach is dependent on the amount of contents and on the influence of the neighboring organs. Since, furthermore, as Simmonds has shown, the shape of the stomach shows all kinds of variations, it is obvious that the normal location is just as difficult to be determined exactly as the true size of the normal stomach.

Clinically we can therefore only speak of a gastropptosis, that is to say, of a pathologic deep location of the stomach if by the deep location a definite symptom-complex is brought about. But even then gastropptosis does not mean a sinking of the entire organ; for we must remember that there is one point of the stomach which is very firmly fixed. This is the cardia. A dislocation of the cardia is scarcely possible for in this case also the esophagus would have to move downward. In contradistinction to this the pylorus is a very movable part. By traction and pressure of neighboring organs it can be moved to a great extent. Now we understand at once that there is no gastropptosis in the true sense. The stomach is suspended at the esophagus and cannot move like a floating kidney. At the same time it is obvious that every dislocation of the movable part of the stomach will necessarily bring about a dilation and a malformation of the organ.

Our knowledge about these conditions has been simplified by the radiosopic investigations. Thus it has been shown that in gastropptosis the pylorus and the lower portion of the stomach lying close to the vertebral column are located deeply. As a result of this a traction is exerted on the upper part of the stomach and the latter is of course elongated in its longitudinal diameter.

As to the etiology of gastropptosis, it was first assumed that a loosening of the ligamentum hepatico-colicum brought about a ptosis of the flexura coli dextra and consequently of the transverse colon and of the stomach. This old theory of Glenard did not, however, bear account of the fact that the stomach is not only supported by the ligaments but also by the intra-abdominal pressure. According to Quinke¹ there is a definite hydrostatic pressure in the abdomen by which all the organs are maintained in their normal position. As soon as the abdominal cavity is altered this intra-abdominal pressure, too, undergoes an alteration and the organs will yield to this decrease of pressure by sinking. These theories seem to be very plausible, yet we must admit that they do not hold good in every case. We have very often an enormous alteration of the volume of the abdominal cavity without a subsequent ptosis. Not all women with pendu-

lous abdomen nor do all patients with large hernias show a ptosis of the organs. Likewise the pressure from above does not always result into gastropptosis, as wearing a corset, for example. On the other hand, in many patients with a gastropptosis or with enteroptosis, and perhaps in the majority of these cases we cannot find any appreciable increase of volume of the abdominal cavity and it would scarcely be possible to accuse the diminished hydrostatic pressure as being the sole cause of the ptosis.

The age in which gastropptosis occurs most frequently is between the twentieth and the fortieth year. Thus we observe the affection chiefly in young people. These patients are poorly nourished, their adipose tissue is very thin, they look emaciated and most of them state that they have to work hard. This shows us that in the etiology poor nutrition and hard work seem to play an important rôle. A very remarkable fact is that ptosis is generally found among women. Women are especially predisposed to all kinds of visceroptosis, and we know how common the floating kidney is in the female sex.

It is as yet impossible to give a satisfactory explanation for this predominance of gastropptosis in women. Perhaps it is an inherited tendency acquired in the course of years owing to wearing a corset and to pregnancies. Perhaps these factors have brought about an inherited congenital weakness. We are somewhat justified to assume this as we know to-day that there exists a definite constitution of the body predisposing to gastropptosis. We can therefore distinguish from the very beginning two different forms of gastropptosis, the one being due to purely mechanical influences, as pendulous abdomen, the other depending on a congenital predisposition. Undoubtedly the latter case is by far the most frequent. Stiller² furnished us the scientific basis for the etiology of gastropptosis. He found that in about 80 to 90 per cent. of all cases a typical constitution of the patient could be found; being the anatomic substratum for the clinical symptom-complex designated by Stiller "congenital universal asthenia," that is to say, a congenital constitutional weakness.

We are able now to recognize this constitutional asthenia by the peculiar structure of the thorax and the abdomen. The so-called habitus enteroptoticus is a true anatomic basis for the whole symptom-complex. The patients we meet with here have usually a long and rather thin throat, a narrow chest and an unusually long abdomen. The skeleton is very delicately built and the musculature is poorly developed. Of a very great importance for the determination of the habitus enteroptoticus is the epigastric angle, that is to say the angle formed by both costal margins. This is in these patients very acute

1. Therapie der Gegenwart, 1905.

2. Die asthenischen Konstitutionskrankheiten, Stuttgart, 1907.

and small. At the same time the intercostal spaces are broad and sunken in. Owing to the abnormal length of the abdomen the distance between the xiphoid process and the umbilicus is far longer than normal.

To summarize briefly, the *habitus enteroptoticus* is a constitutional anomaly being anatomically well defined and characterized by a long and slender thorax. It is recognized very easily by the acute angle between both costal margins. Persons with a very obtuse costal angle and a broad inferior aperture of the thorax are not liable to be afflicted by visceroptosis. Numerous observations, have, on the other hand, shown that patients with the enteroptotic thorax are predisposed to a symptom-complex, given by the three symptoms of atonia, nervous dyspepsia and enteroptosis. This view is somewhat surprising for each of these symptoms used to be regarded as an individual pathologic condition. But there is undoubtedly a relationship of all these things to the enteroptotic thorax as Stiller has pointed out. I myself have observed quite a number of patients in the various clinics and practice and I have found the above mentioned symptoms in most of the cases presenting this peculiar thorax. Atony, dyspepsia and enteroptosis may of course not be present at the same time or one or the other may be less pronounced. Still we are justified in considering the "*habitus enteroptoticus*" the anatomic base on which gastroptosis develops.

Undoubtedly external influences as lacing, corsets, abdominal hernias, traumatism and repeated confinements may also play a part in the production of gastroptosis. All these factors, however, are secondary causes. Lacing or wearing a corset has in numerous cases not brought about a gastroptosis and the injurious influence of the corset has been exaggerated. In persons with a normal thorax lacing will cause no dislocation of the stomach. If the thorax is broad enough it is not constricted by lacing. The line of constriction is then below the ribs at the soft parts. If the thorax, however, is long, as in the enteroptotic skeleton, the lacing line compresses the lower ribs, contracting thus the aperture of the thorax and dislocating the upper abdominal organs downward. Thus lacing and the influence of a corset may indeed be the secondary cause of a gastroptosis which yet depended primarily on the peculiar anomaly of the patient's frame and constitution.

The same is to be said of frequent parturitions. As a matter of fact frequent confinements, especially if a pendulous abdomen exists, may lead to a dislocation of one or more abdominal organs. But it is a remarkable fact that such dislocations of the stomach do not cause the severe troubles chiefly complained of in true gastroptosis. Thus a mechanical dislocation of the stomach does not necessarily imply the symptom-complex of gastroptosis.

The constitutional gastroptosis is a clinical picture we meet with in practice far more frequently than the various forms of mechanical dislocations of organs. Yet it is a surprising fact that the subjective symptoms are commonly misinterpreted. This is easily understood, as the subjective symptoms are generally of such a general nature that they are not referred to as ptosis of the stomach. As a matter of fact the dropping of the stomach in itself is not necessarily the source of subjective complaints. A severe gastroptosis may not be accompanied by any symptom and, on the other hand, a slight degree of gastroptosis may give rise to many disorders. The general view of to-day is that the disorders of gastroptotic patients are chiefly due to their neurasthenic predisposition and to the atonic condition of their digestive tract. My experience has likewise taught me that these young individuals with that typical structure have mainly atonic and neurasthenic troubles. I did not observe old people showing the typical clinical picture of a general asthenia and a true gastroptotic symptom-complex.

Neurasthenia is the marked feature of this disease; but we must not forget that the atonic condition is also answerable for the dyspeptic troubles of the patient. The neurasthenic and the atonic symptoms are so pronounced that it is hard to separate gastroptosis from neurasthenia or from atonia. We agree fully with Stiller in classifying gastroptosis under the broad term of general asthenia, if the typical anatomic structure indicates a ptotic predisposition.

Our patients complain of belching and nausea, vomiting, regurgitation, a feeling of pressure after the meals. True pains are only noticed if they are due to some complication, perhaps hyperacidity. The latter is, as we can easily understand, very frequent and gives rise to all the well-known subjective complaints, as pyrosis, acid eructations and burning pains in the pit of the stomach. It is also typical then that the patient has occasionally bulimia; but in general the appetite is poor. The patients are often afraid to eat because they fear they will get pains and the result will be that their condition of subnutrition will deteriorate.

In almost all cases the patients are constipated which is merely the result of a poor peristalsis due to intestinal atony. So we see the subjective symptoms do not offer anything specific. There are a great variety of general complaints as well as those pertaining to the stomach. For the diagnosis we are therefore directed to a thorough objective examination. To begin with inspection, we scarcely need to repeat how important it is to examine the patient carefully for the enteroptotic structure which is recognized very easily. We see the narrow shoulders, the slender frame of the thorax, we observe the acute epi-

gastric angle and the broad intercostal spaces. The distance between the umbilicus and the ensiform process appears to be very great. The lower part of the abdomen is very much protruding. In women we notice very often a diastasis of the recti muscles.

For palpation one very important sign has been described by Stiller as being very characteristic of gastroptosis; this is the fluctuating tenth rib which is said to occur in about 85 per cent. of all cases.

The number of my observations is of course not great enough to allow a definite opinion about the value of this sign. I have indeed found the tenth rib fluctuating in such cases, but it seems to me that this sign cannot be regarded absolutely pathognomonic. It has certainly been observed in cases not showing any symptom of enteroptosis.

Furthermore, by palpation we find epigastric pressure points, yet I do not consider them very significant; they are simply a sign of a general hyperesthesia. The palpable pulsation of the abdominal aorta which, as some authors claim, occur in enteroptotic patients is likewise of no great significance. It is now possible to palpate the stomach directly and thus find the great curvature. Obrastzow and Cohnheim deserve the credit of having worked out methods of palpation which allow a systematic palpation of the stomach. In palpating the great curvature we have to put our fingers vertically on the abdominal wall; while the stomach is rising upward during expiration, we move our fingers slowly downward. We can feel then the great curvature as a thick band passing by our fingers. It is further recommended to have the patient drink a glass of water before palpation. Then we can hear at the same time a gurgling sound during the expiration. It requires some skill to feel the great curvature and it may be confused with the transverse colon. The latter, however, is longer than the curvature and can be palpated far more laterally. If by this method of palpation the curvature is felt about one-half breadth of a finger below the umbilicus, we consider the case gastroptotic.

In most gastroptotic patients a splashing sound can likewise be heard which is due to the coexisting atony. We still have far more exact methods of determining the outlines of the stomach. One of the oldest methods for this purpose is the inflation of the stomach by air or carbon dioxide. The inflation of air is not as good though as the very simple procedure of distending the stomach by having the patient drink some tartaric acid and bicarbonate of soda.

This saves the patient the discomfort of having a sound passed into the stomach. The distended stomach shows pretty often the lower border very distinctly. Yet not in all cases is this seen absolutely surely. Gastrodiaaphany, on

the other hand, is not a very handy method for practice. We cannot always pass into the stomach a sound with an electric lamp for a direct illumination; however, we can use the fluorescent media for transillumination of the stomach. Kemp holds that transillumination of the stomach is the ideal method of ascertaining its limits; he advocates the introduction of fluorescent media into the stomach before the electric lamp is passed, by which means he has found that the brilliancy of transillumination is increased over one-half. The principal medicine is bisulphate of quinin in the strength of 10 grains to one pint of water, with preferably the addition of 5 minims of dilute phosphoric acid or sulphuric acid. The fluorescence is a pale violet. Increased acidity intensifies its action and fluorescence at once disappears if the solution is rendered alkaline. The other medium is fluorescein used by ophthalmic surgeons to detect ulcers of the cornea; as is well known it is resorcin-phthulium-anhydrid; in an alkaline and alcohol medium it gives a green fluorescence. The HCl of the stomach is first neutralized by giving 15 grains of sodium bicarbonate, dissolved in 8 ounces of water, or 1 or 2 ounces of lime water may be given instead and then a second draught consisting of 8 ounces of water in which are dissolved 15 grains of sodium bicarbonate, 1 dram of glycerin and one-eighth to one-quarter grain of fluorescein. By this means he has been able to transilluminate the stomachs of persons with thick abdominal walls, which is otherwise a difficult matter. For general practice the above mentioned methods will suffice to make the diagnosis of a gastroptosis.

I now enter into the details of the most recent method of radiography because this method promises to become the most accurate and profitable for an exact diagnosis. During the last decade the radiography of the stomach has been improved to such a degree as to give us the most valuable information as to the physiologic and pathologic condition and also position of the stomach.

The first step to the great improvement of gastroradiosecopy was the introduction of the bismutum-bolus by Boas and Levy-Dorn.³ Rieder⁴ first dared to give large doses of bismuth, regular meals of bismuth. These large amounts of bismutum-pulp, being impenetrable for the x-ray, allow us to observe the act of deglutition to determine the cardia, the shape and the borders of the stomach. The action of the stomach is most distinctly observed on the fluoroscopy-screen.

Holzknacht and Brauer⁵ have developed the technic of fluoroscopy, which is by far more valuable than röntgenography. The body is trans-

3. Deutsch med. Wehnschr., 1892, p. 2.

4. München. med. Wehnschr., 1904, p. 35.

5. Wiener Klin. Rundschau, 1899, p. 45.

illuminated in the dorsoventral diameter and in an upright position. As a bismuth-meal we give a pulp consisting of about 400 gr. of milk-rice to which 2 tablespoons of bismuth, subnitrate or oxychlorid are added. To combat the constipating action of bismuth we add a tablespoonful of milk-sugar.

Fluoroscopy and radiography have now considerably modified our knowledge of the topography of the stomach. We have found that the stomach shows normally a vertical position and is almost entirely located left of the median line. The level of the cardia is about that of the tenth to eleventh thoracic vertebra, the deepest point of the greater curvature being on the level of the second to fifth lumbar vertebra. In gastroptosis this point is the deepest. The normal shape of the stomach has been designated by Holzknicht as that of a bull's horn. The statements of the various authors differ very much in this respect. Just this fact teaches us how difficult it is to get an approximate picture of the true shape of the stomach. According to Groedel⁶ the stomach shows a descending part, as gastric sack, and an ascending part. The descending part of the stomach is located in the left half of the body, the gastric sack is median, and the ascending part is in the middle line, with a slight curvature to the right.

The important fact is that the ascending part, the distance between the level of the pylorus and the deepest point of the stomach, is a height which has to be overcome by the action of the stomach.

It is obvious that this method allows the immediate and absolutely correct determination of an anomaly of the position of the stomach. We can recognize whether the greater curvature is located above or below the umbilicus and we can see all the details concerning the pyloric portion and the lower borders. The lesser curvature changes its relation to the diaphragm in gastroptosis, but not in gastrectosis.

After all these methods a functional examination of the stomach is of minor value. In some cases we can expect to find a motor insufficiency and besides an anomaly of secretion which is mostly a hyperacidity. It is not necessary here to enter into these methods of testing the function of the stomach. For the diagnosis I wish to repeat briefly that patients who impress us by their slim and neurasthenic constitution showing that peculiar anatomic structure indicating an abnormal growth in the longitudinal diameter, may be suspected to have an enteroptotic constitution, and we can refer all their subjective complaints to neurasthenia and atony associated with this general asthenia. All the objective methods will teach us then how far the topography of the stomach differs from the normal. But we must always bear in mind that the

amount of subjective disorders is by no means in proportion to the degree of anatomic deviation. The complaints may be severe and yet the ptosis may be very slight and *vice versa*.

The clinical understanding of gastroptosis teaches us that our therapeutic interference can only be symptomatic. We shall never be able to reduce the stomach to its normal position. This, however, is not necessary for a clinical result. We can help the patient by removing his symptoms: this can be done very successfully in this class of patients. We can also prevent a further development of the gastroptosis. All this can be accomplished by a general treatment which aims at a strengthening of the abdominal and gastric musculature.

The chief means for arriving at this goal are dietetic and mechanical measures. Almost every enteroptotic patient shows a condition of subnutrition. This gives us the direction for our diet. It is principally the overfeeding cure as recommended by Playfair and Weir-Mitchell. Of course in modern therapeutics we shall not follow schematically the rules given by these authors and we have to adopt the diet to our individual patients and not the patients to a definite diet. What we want is a gain in flesh with these malnourished patients. We can accomplish this with a systematic rest in bed without overfeeding the patient excessively. We need not surpass the caloric average values too much. Rest in bed is a wonderful sparer of body-substance. Besides, the horizontal position in bed and consequently the resting position of the stomach will influence favorably the atony of the stomach.

A rest in bed with a moderate over-feeding will show good results after two or three weeks. The patients increase in weight, they feel stronger, their appetite is better and usually also their bowel movements have become regular.

It is, however, not absolutely necessary to have the patient stay in bed for the whole duration of the cure. It would suffice to direct him to stay at home and exercise as little as possible. The meals should be small and taken frequently. In general the same food is recommended as in atony. It is of course necessary to give food-stuffs of a high nutritional value, being at the same time easily digested. Cream and butter should be given in great quantities.

Our next object is now to strengthen the abdominal wall and to stimulate the action of the stomach and the intestines. Therefore we combine our dietetic treatment with massage and electricity. A not too rigorous massage of the abdominal muscles favors the peristaltic contractions and renders the abdominal wall more resistant. In addition we apply intragastric faradization.

It is furthermore of very great value to have the patient wear an abdominal support. Instead

⁶ Arch. f. klin. Med., xc, 433.

of this Rosewater⁷ recommends an adhesive-plaster-bandage. A broad strip of adhesive plaster mole skin is fixed at the sternum and at the symphysis; two other strips run from the symphysis to the back upward and are fixed between both scapulae. It is recommended to use perforated plaster which allows a good perspiration of the skin and prevents eczema. Such plasters can be held on the skin for two weeks. Experience has shown that patients feel very comfortable with such a plaster and that their subjective symptoms disappear. We can also use special corsets; Bassler and Gallant, Von Noorden and the commercial straight front corset, except in emaciated patients.

The medicinal and mechanical treatments give relief in a large percentage of cases; however, if the suffering of the patient continues I can only come to the conclusion that surgical treatment is the only logical one.

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MODERN LIFE VS. LONGEVITY *

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In the light of the present, we readily understand the reasons for the appalling death-rate of generations ago. Compare, if you will, the mortality statistics of the pre-Listerian periods, with those of to-day and you wonder at the bravery and courage of the surgeons who attempted an operation in those days, except upon the most serious apprehension of the death of his patient. Now, with an uninfected field of operation and with the strict observance of the laws of asepsis and antisepsis, what brilliant results are recorded every day of the year!

Take a retrospective glance over the achievements of the internist. It is necessary to mention but a few of his triumphs to bring conviction to the most skeptical regarding the progress which is being made. Diphtheria bereft of all its dangers by the early and timely administration of antitoxin; variola robbed of all its significance by the use of a simple prophylactic measure—vaccination; yellow fever, the scourge of our Southland, brought to a sudden death by the annihilation of the *Stegomyia* mosquito; the doctrine of the prevention and cure of tuberculosis—and the proofs thereof; the Flexner serum for epidemic cerebrospinal meningitis; the studies of Stiles on hookworm; all stand as monuments erected to the glory and fame of the internist.

But, withal, an accompanying sad disregard for seemingly insignificant evils have crept into our lives; evils, which of themselves rarely kill, that induce by their insidious action upon the

life processes of the body, cardio-vascular-renal disease, which means death sooner or later for most of us. I have reference, in the first place to the great abuse made of alcohol. The New York actnaries credit the total abstainer as a risk ranging from 5 to 35 per cent. better than even the moderate drinker; and they assert most emphatically their belief that moderate drinking interferes with one's chances for length of days. Alcohol is used as a beverage by two great classes of men. First, the habitual moderate drinker, of the never-get-drunk variety, and, secondly, the periodical drinker, who indulges heavily at different intervals of time. Society in her garb of innocence or ignorance looks upon the first at most with indifference; the second she condemns outright, offering no pity and seeking no explanation. But study these two classes of men from the standpoint of health and disease, and one learns very readily indeed that he who indulges in alcohol generously, but seldom, is far better off physiologically than the genial toper with the bloom on his nose who requires an appetizer before his meals, and a little stimulus in the intervals thereof. To determine the extent of the damage inflicted by the excessive use of alcohol would be from the very nature of the problem, a fruitless undertaking.

Statistics record chronic alcoholism, delirium tremens and cirrhosis of the liver among the three great causal factors of death unmistakably attributable to alcohol intemperance. Unfortunately, the many deaths due to Bright's disease, pneumonia, apoplexy, consumption and various mental diseases, are registered under their specific nomenclature, notwithstanding the fact that in many instances the causative factor is alcohol.

Permit a passing word on the deleterious effects of alcohol. The stomach meets the poison first; it is also the first to rebel against it. At the beginning, a dilation of the vessels takes place, the glands are stimulated to increased activity, the appetite is sharpened, and all's well. Soon, however, degenerative changes of a granular, fibroid and fatty nature appear; first in stomach, then the liver, kidneys, heart, lungs and brain; metabolic disorders arise, consisting of the imperfect oxidation of the tissues with consequent deposition of fat in the body; the nervous system falls an easy prey to the action of alcohol as exhibited in the production of epilepsy, paralysis and insanity.

A most important detrimental influence of alcohol is its proneness to develop arteriosclerosis, a condition which disturbs the perfect equilibrium existing between the exosmotic and endosmotic currents of the blood and thereby interferes with the perfect and true function of every organ in the body.

It is not inferred that alcohol is totally without some counter-quality, for it is conceded that within narrow limits it is a food, not in the sense

⁷ New York Med. Jour., 1901.

* Read before the Twelfth District Medical Society, Excelsior Springs, Mo., September 22, 1910.

in which we call meat a food as furnishing pabulum to the blood, but in that it liberates force and energy in the process of its oxidation in the body.

A second evil intimately associated with the noise and bustle of modern life is that of errors in eating. I refer principally to the bolting down of food and excesses thereof. This is an evil as wide-spread as that of alcoholic intemperance; it is, likewise, capable of arousing into action, by its insidious but persistent influence on the body, grave organic lesions which must ultimately reap a harvest of premature and untimely decay.

What manifest violations of the unerring rules of nature do we see committed every day! Let an important event be signalized and of this be sure that the feature of the occasion will consist of an elaborate spread, not of the most digestible and nutritious food stuffs, but of a number of would-be-called delicacies prepared by one well-versed in the culinary art, whose great point in view is to give pleasure to the palate irregardless of how like a poison they rest upon the stomach. "The dawn of the morning after," tells the story of abuse—a coated tongue, foul breath, bad taste in the mouth and temporary loss of appetite. And so the law of alternate rest and exercise applicable to all vital organs is being disregarded until partial or total disorganization has taken place. The gastric juice becomes deficient in quantity or quality, or in both; a condition of labored digestion develops; the stomach becomes distended with flatus owing to fermentative decomposition with the formation of butyric and lactic acids; the alimentary canal is irritable and gives rise to mental disturbances. But more important than all this is the high tension produced in the arterial walls with consequent hastening of that process of arteriosclerosis, the bug-bear of medical treatment, the ever constant accompaniment of immoderate living, the great factor determining for the most of us, primarily or secondarily, a question between life and death.

The American people, with their inordinate desire to amass wealth, their great display of wild enthusiasm, rush and thriftiness, have given rise to several diseases markedly their own. The basal cause of these diseases is mental and physical strain. Whatsoever be the occupation of the man, whether a student, a financier, a speculator, or what not, the phenomena proclaiming that he is subjecting himself to mental excess have many points in common. Wherein lies the fundamental injury? It seems to consist in an insidious and progressive affection of those nerve centers, involuntary in kind, which minister to the stomach, heart, secretory glands, and so on. In mental excess the nerve supply of the heart is interfered with; an irregularity and intermittency set in; the brain, awaiting its full stimulus, remains blunt and inactive and finally insomnia looms to sadden the already sorrowful picture.

With this follows a condition of total disorganization. Digestion becomes labored; the secretions are unable to perform the duties of their office; the memory is treacherous, the patient is fretful, peevish and irritable; in a word, there has been a fearful drain on his nerve capital and the evidences of latent organic lesions are about to appear.

In physical excess, as contrasted with mental strain, we have another pernicious practice, as competent to give birth to disease. To determine the natural bounds of work is problematic; man is prone to abuse his rights. He will boastfully call upon his body for energy and force which can never be restored; goaded on by the suggestion of his friends, he will undertake tasks far beyond the normal limits of safety. His heart responds to the new demand made on it, by becoming hypertrophied and sends the blood flowing through his veins with tremendous pressure. The athlete, for instance, continues his suicidal course, ever negotiating "his bank of life" until the time when he seeks relaxation. Then is exhibited the unequal battle which has been waging; a battle in which mutable matter and force is pitted against an immaterial and unyielding influence—time. Examine such a man and what do you find? An abnormally hypertrophied heart, and an arterial tension far beyond the range of necessity and even of safety. Of what grave import are these? Let us see. The body, during the first period of life, possesses the power, in a remarkable degree, of adapting itself to those influences brought to bear on it; but a time for repose must come and with it, of course, a relaxation of the entire muscular system, with this result, that a generally lessened imperative demand is now made on the heart. It, however, responds unequally to the present status of things, being under the control of involuntary nerve centers. It remains relatively large, and continues to pump with great pressure through vessels now rendered weak from inherent loss of tonicity and loss of support from surrounding structures. Such a man is ever conscious he has a heart for he sees and feels it beating against the chest wall. Aortic insufficiency "the athlete's heart" looms to sadden the prognosis. As long as progressive compensatory hypertrophy meets the requirements of the circulation all's well from that source; let rupture or broken compensation be induced and a "grissly troupe" of symptoms will develop of which dyspnea, dropsy, restlessness, insomnia, venous engorgement of the liver, kidneys and spleen form only an infinitesimal part. But before the onset of this grave and destructive symptomatology, yes even at the time when the man was at his best, then already his arterial walls were being undermined slowly but surely and inevitably; arteriosclerosis was forming doubly sure, first, by the over-work of the muscles which increased the peripheral resistance.

and, secondly, by the fruitful attempts of an enormous and powerful heart in overcoming such resistance by raising the blood-pressure. Monoplegia, paraplegia, apoplexy, interstitial nephritis and aneurysm are only a few of the diseases which can be induced by physical excess of one kind or another.

In the light of these truths we can scarcely hesitate to affirm, as did long ago the Greek and Roman physicians, that excessive exercise insures a premature grave.

The subject is inexhaustible and all one can do is merely take a casual survey of the field in a paper of this character. Yet there is another topic to which I can give but a passing thought, namely, the social evil. From time immemorial, irregular intercourse has existed. Unless man's nature completely changes, it is likely to continue forever. The social evil is not an "evanescent theory," but a great "abiding fact," a most lamentable reality. Its greatest evil lies in the dissemination of two venereal diseases, viz., gonorrhea and syphilis. To appreciate the untold physical misery and suffering, the mental anguish and pain they cause, one needs only to visit the gynecological, pediatric and venereal wards of our great hospitals, and observe in particular the innocent mothers and helpless children who are there because of the sins of father and husband. Man ought to suffer social ostracism for his acts in the same measure that society inflicts it on the fallen woman. He should be made to submit to a physical examination by a competent physician and a certificate of health given him before a license to marry is issued to him. The fear of impregnation ought not to be the restraining influence in woman, nor the lack of its fear the encouraging influence in man. The exercise of morality should actuate them both, at all times. But this is ideal. Nothing short of education can accomplish any results in that direction; an education which consists in the proper and uniform development of the intellectual, physical and moral nature of man. Until then the solution of this much mooted question rests on the enforcement of such measures as will insure the most drastic, as well as the most systematic regulation of prostitution.

BOOK REVIEWS

LIPPINCOTT'S NEW MEDICAL DICTIONARY. By Henry W. Cattell, A.M., M.D., Editor of *International Clinics*. Octavo, pp. 1108. Illustrated. Philadelphia and London: J. B. Lippincott Co. (Limp leather, thumb index, \$5.00.)

This work is probably the latest medical dictionary on the market, and therefore includes all the new words that have been added to the vocabulary of medical science within recent years. It is an admirable

volume for ready reference, one of its most attractive features being an elaborate system of cross-reference. The book partakes very considerably of the nature of an encyclopedia, as much more information is added to the definitions of many of the words than is usually found in an ordinary dictionary.

A HANDBOOK OF THE SURGERY OF CHILDREN. By E. Kirmisson, Professor of the University of Paris, Surgeon to the Hospital for Sick Children, etc. Translated by J. Keogh Murphy, M.C. (Cantab.), F.R.C.S. Surgeon, Miller General Hospital for South East London. Senior Assistant Surgeon Paddington Green, Children's Hospital. Henry Frowde, Oxford University Press. Hodder and Stoughton, Warwick Square, E.C., London, 1910. American Branch, 35 West Thirty-Second Street, New York.

The translator of this work has attempted to follow accurately the ideas of the author, thus giving the reader the teachings of the French school.

In his preface the author states that his aim has been to give special prominence to the important phases of the subject. Especially are the subjects of malformations and diseases connected with the locomotor apparatus, conditions which dominate the surgery of children, given careful consideration.

The work is classified into four sections as follows: surgical affections of congenital origin; injuries of childhood; inflammatory lesions and disorders of nutrition; and neoplasms.

An appendix on notes on anesthesia in children, by Dr. Cecil Hughes, enhances the value of the work.

The author has accomplished his purpose well. The work is a valuable addition to this important field of surgery.

FRACTURES AND THEIR TREATMENT. By J. Hogarth Pringle, M.B. (Ed.), F.R.C.S. (Eng.) Glasgow. Henry Frowde, Oxford University Press. Hodder & Stoughton, Warwick Square, E.C., London. American Branch, 35 W. Thirty-Second Street, New York. One is impressed with the clear and concise, yet complete descriptions in this work.

The chapters on the general consideration of fractures are excellent. The complications are dealt with in a very satisfactory manner. The numerous illustrations, many of them original, help to give a clear idea of the text.

On page fifty is found the following statement: "I am certain that the fewer cases of fracture treated with plaster splints, the better." This idea is surely carried out. A great many mechanical appliances are pictured and described, while plaster casts are given very little mention. The open treatment is advised in many cases, especially in most of the fractures about the elbow, shoulder, knee, ankle, certain hip fractures, and all fractures of diaphyses where the deformity cannot be overcome or maintained satisfactorily. The author advises direct fixation of most open fractures. Early massage and early use of the limbs are urged. The treatment, even to the details, is very clearly described.

The chapter on fractures and their results in connection with the workman's compensation, with the tables showing the estimation of the depreciation in working efficiency, should prove very valuable. Much excellent information is given in a compact, well arranged, easily readable form.

Few references are found in the text but an extensive list of the literature on each general subject is given at the end. The work, while not always in accord with American ideas, will be found very valuable for reference.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

MARCH, 1911

EDITORIALS

THE STATE BOARD OF HEALTH BILL DEFEATED

The bill to increase the powers of the State Board of Health was defeated in the House of Representatives and probably no further attempt will be made to enact the law at this session of the legislature. The opposition to the bill was strong and quite general among the members of the House, although the measure had some very firm friends; they could do nothing, however, to alter the determination of the majority in the House to kill the bill, so they quietly submitted to defeat.

Most of the opposition came from the Christian Scientists and the National League for Medical Freedom, both these organizations having influenced the minds of the members of the House in such manner as to give them a false notion of the intents and purposes of the bill. In addition to the opposition from these sources, we were attacked by a member of the House whose attitude seemed to be antagonistic to all medical legislation; indeed, so antagonistic was this gentleman that he introduced a bill to repeal the vital statistics law; and the fact that the Committee on Public Health reported this latter bill unfavorably strengthened his determination to defeat any measure advocated by the medical profession.

The optometry bill was reported unfavorably by the Committee on Criminal Jurisprudence, and will not pass at this session.

The bill to create a board of examiners for eclectics was reported unfavorably by the Committee on Public Health, but has been reintroduced. It is not likely, however, that it can be considered on account of the late date of its reintroduction and the numerous other bills which will demand the attention of the legislature.

Our Committee on Public Policy and Legislation has again demonstrated its usefulness, and its report at the annual meeting will be looked forward to with much interest.

KANSAS CITY MILK COMMISSION REPORT OF COMMITTEE OF JACKSON COUNTY MEDICAL SOCIETY

The committee has held several meetings in which the contract as specified by the American Commission has been discussed, and made as nearly as possible satisfactory with relation to our local milk situation. The great difficulty the committee has had to contend with in organizing its work is the deplorable fact that average dairy conditions in the vicinity of Kansas City, just as they are adjacent to every other large center, fall far short of being ideal. The average dairyman is naturally satisfied with whatever standard his customer is willing to accept. We cannot hope to change the attitude of the ordinary dairyman, since that is the work of the health board, and we believe that with the efforts which have been made by gentlemen engaged in that department in the last few years, commercial milk supplied in Kansas City is practically free from deleterious artificial preservatives. The average milk is not clean and it is not fit for infant feeding. The work of the Milk Commission, however, must have to do primarily with raising the standard of the few dairies whose owners will be willing to assume the additional expense and manifest sufficient intelligence in the care of the milk to bring it up to the standard of the minimum requirements of the American Association. This milk must be sold at a higher price than ordinary milk.

Medical milk commissions have been established in eighty cities in the country. The committee regrets to say that Kansas City is practically the only large city without certified milk subjected to the regulations of a commission appointed by the county medical society. There is no discrimination in regard to the supply of milk for certification excepting that the requirements of the American Association as to what constitutes clean milk must be rigidly observed.

The committee has had but one proposal for certification up to the present time. Three other companies are considering making similar applications, all of them depending on the interest manifested by the members of the county society in this vital question. Your committee has taken the liberty to assure these progressive and humanitarian companies that they will have our enthusiastic support. One of the applicants already has made partial arrangements and the others say they will comply with the regular requirements of the National Association if given our endorsement. The work of testing the cows for tuberculosis, sanitary provisions for the stable and surroundings and other details necessary to furnish a product which would pass inspection, takes time. The committee therefore asks further time for the perfection of arrangements before it would seem advisable to attempt certifying any dairy. It is to be borne in mind

that we are obliged to accept at least the minimum requirements of the American Association as our standard. The committee invites all dairymen who desire to qualify to submit their plants for certification.

No certified milk can be sold in quantity to justify the producer making the change unless the medical profession gives its unqualified endorsement to the undertaking. It is not a proprietary food, it is not pasteurized nor sterilized. Simply, we are asking for pure milk, kept clean from its origin to the ultimate consumer—the baby who gets it. The experience of older workers in the field is that this result can only be realized by an organized effort backed by the official medical society of the community.

Your committee simply reports progress and asks that a meeting be arranged later on, when the subject may be taken up in connection with the general discussion of improved milk conditions.

A laboratory and a modifying station are now under construction and will be affiliated with the farm whose product is to be certified by the commission. It is expected to have the work fully organized and ready for distribution of prescription milk and certified milk under the auspices of our commission by February 15 or March 1. We bespeak for this work the earnest cooperation of the medical profession of Kansas City.

We would direct your attention to the contract of the American Association of which we are a component part, and also the report of the St. Louis Medical Milk Commission from the last issue of *THE JOURNAL* of the Missouri State Medical Association, showing what is being done by them.

GEORGE C. MOSHER, Chairman,
FRANK J. HALL,
A. W. McALESTER,
J. EDWARD HUNT,
C. LESTER HALL,
FRANK C. NEFF,
WALTER M. CROSS,
D. E. BRODERICK, Secretary.

The Committee.

ACUTE ANTERIOR POLIOMYELITIS: INFORMATION WANTED

On another page of this issue we publish a communication from Dr. Archer O'Reilly, in reference to his studies of infantile paralysis. This is of interest to every physician in the state since anterior poliomyelitis seems to be much more common throughout the country than was formerly supposed to be the case; and on account of the permanent paralysis often following an attack it is one of the most serious conditions with which we have to deal. It usually attacks the young child while apparently in the best of

health, and almost invariably leaves him a cripple for life.

Within the last year or two Flexner and others have completed some very remarkable research work on this subject. Some states are making a very careful study of this disease through their boards of health and require each case reported. In Massachusetts the board has sent a special investigator to every case reported and as a result the Massachusetts Health Commissioner has been able to publish some very valuable statistics; Iowa, Nebraska, Kansas and Illinois have also investigated and reported on epidemics of this disease within the last year.

Last fall Dr. O'Reilly endeavored to learn something concerning the prevalence of the disease in Missouri but being unable to gain any information from the State Board of Health, he was compelled to collect the data himself through questions sent to all members of the State Association.

We wish to urge all members to respond to Dr. O'Reilly's request for information on infantile paralysis as the statistics he is gathering will prove most valuable to all physicians in the state and lead, we hope, to some definite action by the State Board of Health to require a report of these cases and a careful investigation of the prevalence and cause of the disease in Missouri.

JASPER COUNTY MEDICAL LIBRARY

The Jasper County Medical Society has established a medical library at Joplin with the following committee in charge: Dr. J. B. Taulbee, chairman; Dr. A. M. Gregg, secretary; Dr. W. H. Lanvon, Dr. A. B. Freeman, Dr. R. L. Neff, Dr. C. C. Cummings, all of Joplin; Dr. W. E. Steele, Carthage; Dr. J. W. Clarke, Cartersville.

The Carnegie Library has assigned space in its building for the use of the Medical Library. The books will be in charge of the librarian of the Carnegie Library, who will catalogue and care for them with the same attention that is given to the books in the general library.

Members of the Jasper County Medical Society and physicians in the neighboring towns and counties who have books or journals of interest to medical men will perform a real service to the local profession in their community by depositing in the medical library at Joplin any books and periodicals that may have ceased to be of service to them. These works should never be destroyed, but ought to be placed in a library where they will serve as reference works for future use. We suggest, therefore, that the members search their libraries and turn over to the Jasper County Medical Society Library such books and journals as they do not care to preserve for their own use.

PAY YOUR DUES

It is important that all members renew their affiliation with county societies at once in order that they may not be deprived of any of the privileges of membership in the State Association. Many county societies have sent in their dues, and others are coming in daily, but we wish to urge upon all members the necessity of being prompt in the payment of their annual dues, so that the county society's secretary can remit promptly to the State Association, thus preventing any lapse in membership.

Members should not allow their affiliation with the Association to be interrupted by failure to pay the dues in any year, for this dereliction might mean a sacrifice of the right of defense by the Association in a malpractice suit at some future time. Damage suits for malpractice may be filed at any time within five years after the service has been rendered, and should it happen that the doctor failed to pay his dues and maintain good standing for that year, he would be deprived of the right to be defended by the Association, even though he had paid every succeeding year until the suit was filed. This is the most important and beneficial phase of membership in the Association. We hope members will not endanger their right to participate in this privilege by allowing their membership to lapse through failure to pay their dues.

Let every member pay up at once, and support the organization by attending the meetings and contributing in every way to the success of the Association and the influence of medical societies in Missouri.

PAPERS FOR THE SURGICAL SECTION

The program for the Surgical Section is now under preparation and all those desiring to participate therein are requested to write at once to the secretary of the Surgical Section, at the same time giving subject of paper. The papers will be limited in number this year and it is desirable that those participating should send their names and the subject of their papers at once. Address Dr. Ernest G. Mark, Secretary, Gloyd Building, Kansas City, Mo.

FIFTY-THIRD ANNUAL MEETING

In April we will publish the preliminary program for the next annual meeting. Members who desire to read papers should address one of the committee on program.

The meeting will be held at Jefferson City, May 16-17-18. Although the capitol was destroyed, there are other buildings at Jefferson City where the meetings can be held conveniently. The local profession at the capital is looking for-

ward to a large gathering at this annual session and will make every preparation for the convenience and entertainment of the Association.

CORRESPONDENCE

INFANTILE PARALYSIS

ST. LOUIS, Feb. 28, 1911.

To the Editor: I would like to express, through THE JOURNAL, my thanks to the doctors of the state who have responded to my questions in reference to infantile paralysis. I have sent out 3,000 letters to the members of the State Association and have received, to date, about 1,000 answers. I find from the responses that there is a good deal of infantile paralysis in Missouri and I want to urge other members of the Association to reply to my questions as soon as possible.

Infantile paralysis seems to be increasing at a rapid rate, and aside from the statistics which I am trying to gather I know of no data concerning its prevalence in Missouri. Most of the states bounding Missouri have accurate reports as to its prevalence within their borders.

I hope to publish the results of my investigation in the early spring and therefore request all the members who received my letter and who have not yet replied, to answer as soon as possible so that we may have an accurate report. If those who may have mislaid my letter wish another copy they may obtain it by writing to me; or see the list of questions in the October, 1910, number of THE JOURNAL.

Thanking you and the members for their hearty cooperation, I am, Yours truly,

ARCHER O'REILLY.

NEWS NOTES

DR. HENRY HANSON of Des Peres, St. Louis County, has been appointed health commissioner of St. Louis County. He was recommended to the position by the St. Louis County Medical Society.

DR. THOMAS H. DOYLE of St. Joseph was given a testimonial banquet by the medical profession of St. Joseph, and presented with a handsome loving cup on his seventieth birthday, Nov. 7, 1910.

THE St. Louis University has begun the reorganization of its medical department, the first step in this direction being the appointment of Dr. Charles H. Neilson to the chair of medicine and placing this department on a salary basis.

DR. L. W. BREMERMAN of Chicago and Dr. Ernest G. Mark of Kansas City were the guests of Dr. Bransford Lewis at St. Louis on January 29. A number of St. Louis physicians were invited to meet the visitors at a reception at Dr. Lewis's residence.

DR. HOBART A. HARE of Philadelphia was the guest of honor at the annual banquet of the Jefferson Medical College Alumni in St. Louis on January 28. An informal reception was given by Dr. William Porter at his residence, and the members of the St. Louis Medical Society were invited to meet Dr. Hare.

NEW YORK HOSPITAL FOR THE CARE OF CRIPPLED AND DEFORMED CHILDREN.—The tenth annual report of this institution just issued shows that eighty patients were treated during the year. Of this number forty-six, or 57.5 per cent., were afflicted with tuberculous diseases of the joint and spine; four of these were discharged cured and three improved; there were no deaths; thirty-two patients were discharged during the year, leaving forty-seven under treatment at the time the report was submitted Sept. 4, 1910. The institution is conducted for the benefit of the poor of New York State only. The report contains interesting information showing what has been and can be done by intelligent and well-directed effort in behalf of the crippled and deformed poor children of New York. During the ten years of its existence only three deaths have occurred in the institution, all from chronic tuberculous diseases; there has been no death from any of the ordinary acute diseases of childhood.

PRIZE FOR THE BEST ORIGINAL ESSAY ON ANY DISEASE OF THE COLON.—The American Proctologic Society announces through its committee that the cash sum of \$100 will be awarded, as soon as possible in 1911, to the author of the best original essay on any disease of the colon in competition for the above prize.

Essays must be submitted to the secretary of the committee on or before May 10, 1911. The address of the secretary is given below, to whom all communications should be addressed.

Each essay must be typewritten, designated by a motto or device, and without signature or any other indication of its authorship, and be accompanied by a separate sealed envelope, having on its outside only the motto or device contained on the essay, and within the name, the motto or device used on the essay, and the address of the author. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays, if reclaimed by their writers within six months, provided return postage accompanies the application.

The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

The competition is open to graduates of medicine (not fellows of the Society), and to members of the senior classes of all colleges in the United States or Canada.

The object of the prize and competition is to stimulate an increased interest in, and knowledge of proctology.

The committee shall have full control of awarding the prize and the publication of the prize essay, and it shall be the property of the American Proctologic Society. It may be published in the Transactions of the Society and also as a separate issue if deemed expedient. The committee may increase its membership if deemed advisable.

DR. LEWIS H. ADLER, JR., Secretary.

1610 Arch St., Philadelphia.

THE American Gastro-Enterological Association will hold its fourteenth annual session in Philadelphia April 19 and 20 at the Bellevue-Stratford Hotel. The following preliminary program has been announced:

The Importance of Tonus in the Mechanical Activities of the Alimentary Canal, WALTER B. CANNON, Boston.

Stretching of the Pylorus in Benign Stenosis, MAX EINHORN, New York.

The Operative Treatment of Impermeable Cardiospasm, WILLY MEYER, New York.

I. A Further Study of the Anthropometry of Enteroptosis; II. Neuro Muscular and Secretory Coordination between the Stomach and the Duodenum; III. The Kaolin or Bolus Alba Treatment of Gastro-Intestinal Disorders, JOHN C. HEMMETER, Baltimore.

Gastric Hypersecretion, ARTHUR F. CHACE, New York.

Case of Gastric Ulcer with Sulph-hemoglobinemia and Operation, J. FUHS, Brooklyn.

Some General Remarks on the Treatment of Gastric Disturbance, J. KAUFMANN, New York.

The Cammidge Pancreas Reaction in 100 Tuberculous Cases at the Sanatorium of the Jewish Consumption Relief Society, C. D. SPIVAK, Denver.

The Relation of Symptoms to Pathologic Findings in Cancer and Ulcer of the Stomach. Lantern-slide Demonstration, J. C. BLOOMGOOD, Baltimore.

Some Leading Points in X-Ray Examination of the Digestive Tract. Lantern-slide Demonstration, P. M. HICKEY, Detroit.

Is Pellagra a Disease Primarily of the Alimentary Tract? J. C. JOHNSON, Atlanta.

The Sigmoidoscope, A. L. BENEDICT, Buffalo.

A New Sigmoidoscope and Proctoscope, D. D. ROBERTS, Brooklyn.

Contribution to the Knowledge on the Function of the Duodenum, L. KAST, New York.

Experimental Studies of the Duodenal Contents, WM. GERRY MORGAN, Washington.

Perforation in Duodenal Ulcer, J. A. LICHTY, Pittsburgh.

The Cause and Relief of Pain in Duodenal Ulcer, JAMES T. PILCHER, Brooklyn.

Duodenal Ulcer, LEWIS BRINTON, Philadelphia.

Further Experience with the Benzidin Test for Occult Blood in Diseases of the Digestive Organs, F. W. WHITE, Boston.

Lymphocytosis in Certain Gastro-Intestinal Cases, JOHN P. SAWYER, Cleveland.

Title to be announced later: S. J. MELTZER, New York; L. B. MENDEL, New Haven; D. RIESMAN, Philadelphia; H. ADLER, Baltimore.

HOSPITAL NEWS AT ST. LOUIS.—Nothing of special importance has developed in the hospital situation at St. Louis since our last issue.

In the meantime, the charter has been defeated. Many of those who opposed the hospital bill two years ago made the argument that we should wait until the new charter was adopted. At that time it was pointed out by the advocates of the hospital bill that (1) there was no certainty as to when the charter would be submitted; (2) it was extremely probable that it would be defeated, especially if it abolished the House of Delegates; and (3) that, in any event, the hospital reorganization would have to be effected by ordinance, whether under the new or old charter.

The St. Louis press laid some stress on the belligerent attitude of the interns at the City Hospital. This was greatly exaggerated, although the "walk-out" or strike was no doubt seriously considered by a large majority of the interns. This, however, was certainly an ill-considered and impulsive act, based on ignorance of the conditions which forced the summary dismissal of one of the interns. This intern was not dismissed for smoking, as he was not a regular, nor even an occasional, smoker; but he had deliberately broken one of the rules to draw the fire of the superintendent and resident physician. He was suspended, therefore, not for smoking, but for discourtesy and insubordination toward his superior officers. The interns petitioned the hospital board to reinstate, without prejudice, their suspended colleague and requested that an answer to their petition be forthcoming the day after it was presented to the board. This was ignored by the board. Subsequently, before the interns had taken any official action toward resigning in a body, they were informed that should they resign singly or in groups the resignations would be immediately accepted. This had a good effect, and while five of the interns left on February 1, it was for reasons having nothing whatever to do with the suspension of one of their colleagues.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF THE CITY HOSPITAL ALUMNI

The regular meeting of the Medical Society of the City Hospital Alumni was held at the City Hospital, St. Louis, Thursday, Feb. 2, 1911, at 8:30 p. m. The program consisted of the following:

"An Unusually Extensive Operation for the Cure of Inguinal Hernia," by Dr. C. L. LaRue. Discussion opened by Dr. Willard Bartlett.

"Presentation of a Case of Cerebellar Tumor," by Dr. E. P. Buddy. Discussion opened by Dr. Sidney I. Schwab.

"Report, with Findings, of a Case of Perforation of Aortic Valve," by Dr. E. Lee Myers. Discussion opened by Dr. William H. Engelbach.

MEETING OF MARCH 2

This meeting will be held at the American Hotel. Following is the program:

"The Treatment of Syphilis with '606,'" Dr. Joseph L. Boehm.

"Remarks on the Treatment of Syphilis with Mercury," Dr. Amand Ravold.

"Remarks on the Wassermann Reaction in the Diagnosis of Syphilis," Dr. E. F. Tiedemann.

The society is preparing a special bulletin for next November, the twentieth anniversary of its existence. This bulletin will contain a complete list of members and also of all the interns in the City and Female hospitals. It is desired that photographs of the members be collected, as this will form a valuable addition to the records of the society.

The publication committee requests all members to send their photographs to Dr. Alexander E. Horwitz, chairman Publication Committee, Metropolitan Building, St. Louis.

The following report on the death of Dr. Chamberlain was adopted:

It is with a feeling of deep regret that we record the death of Dr. Ray W. Chamberlain, a member of the Society of the City Hospital Alumni.

In Dr. Chamberlain's death the society has suffered a great loss.

Dr. Chamberlain graduated from Washington University, May 29, 1909, and after a competitive examination was appointed to the position of intern at the Female Hospital, where he served with distinction for one year.

In June, 1910, after another competitive examination, he was appointed assistant resident physician of the City Hospital, in which capacity he served until the time of his death, Dec. 23, 1910.

Dr. Chamberlain was a good student, a faithful worker, industrious, and in his short professional career had shown marked ability as a physician.

The Society of the City Hospital Alumni, desiring to express its sense of the personal worth and services of the deceased, herewith resolves:

That this appreciation be spread on the minutes of the society, published in the official journal of the society, and that a copy, with an expression of sympathy, be sent to the bereaved family.

OLIVER H. CAMPBELL, M.D., Chairman,

N. M. FREUND, M.D.,

WALTER R. HEWITT, M.D.,

The Committee.

ADAIR COUNTY MEDICAL SOCIETY

The Adair County Medical Society held its regular monthly meeting on Thursday, February 3, at the office of Dr. E. C. Callison, Kirksville, with the fol-

lowing members present: Drs. Martin, Parrish, Gashwiler, Quinn, Butler, Callison and B. B. Parrish.

The secretary read communications from Dr. E. J. Goodwin, secretary State Medical Association, and Dr. R. M. Funkhouser, chairman of the Committee on Public Policy and Legislation, in regard to the Owen Bill. The society ordered the secretary to draft suitable resolutions favoring passage of this bill and forward a copy to Congressman Lloyd for his consideration and support.

The scientific program was next taken up, and Dr. E. C. Callison read a very interesting and instructive paper on the "Value of Suggestion and Hypnotism in the Treatment of Disease." The paper brought out many valuable points and summarized with the impression that many seeming pathologic conditions were not in reality pathologic, but were due to suggestion and autosuggestion, and that they could be treated successfully with suggestion. The paper brought out a lively discussion by all members present, and indeed, it has been one of our best meetings.

The society is in excellent condition, and showing excellent activity in scientific and public affairs, and we look forward to the coming year as the most profitable one in the history of the society.

The society adjourned to meet in the office of Dr. E. S. Quinn, Kirksville, the first Thursday in March.

BERT B. PARRISH, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society held its regular monthly meeting January 9, at 8 p. m. Members present were: Drs. Hays, Hope, Howard, Moore, Schnitz, Wichterich, Wilson and Yount.

The secretary reported that the roster of members is the same as in 1910, with the exception of the name of Dr. R. P. Dalton, who did not wish to continue membership, and the addition of Dr. John L. Ellis.

Dr. Edward Moore read a paper on small-pox, which brought out interesting points for discussion. After the reading of this paper the resolutions of the St. Louis Medical Society regarding vaccination were read and adopted unanimously.

The next paper on the program, entitled "Impetigo," was read by Dr. D. H. Hope, who thoroughly covered the subject.

After social talks the society adjourned.

E. H. G. WILSON, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society met at Harrisonville, February 2. The president being absent, the vice-president, Dr. W. K. Wright, was called to the chair. There being so few members present on account of the great amount of sickness, it was decided to postpone the rendering of the program until the next meeting, and take up the time transacting a few matters of business.

Dr. W. B. Levens, Creighton, was elected to membership by transfer from the Bates County Medical Society.

A motion was passed asking the state senator and representative of this district to oppose House Bills Nos. 52 and 93. The secretary was directed to communicate this action to those gentlemen.

A motion was made to extend the sympathy of the society to Dr. M. R. Balliett, Pleasant Hill, a former member of this society, in the recent accident in which both legs were cut off by a train backing over him.

H. S. CRAWFORD, M.D., Secretary.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY

By invitation of Dr. John Stewart, the Lawrence-Stone County Medical Society met at Mt. Vernon in the board room of the State Sanatorium. By the kindness of Dr. Stewart, the members of the society were given the privilege of visiting every department of the institution. All members present were unanimous in praise of the management. The work being done at the State Sanatorium for Incipient Tuberculosis is wonderful. The physicians of the state should visit the institution so that they could see the great work that is being accomplished. The institution is crowded and needs more buildings. Drs. Stewart and English are deserving of great credit, and it is the hope of the society that the state should see to it that they receive better salaries.

The regular meeting of the society was called to order by Dr. J. P. Andrews, president. After roll call and reading of minutes, Dr. J. B. Fleming, secretary, read a letter of welcome from the board of trustees of the Sanatorium. Dr. Harris of Mt. Vernon, responded. In the course of his response, Dr. Harris stated that while the society accepted the hospitality of the board the society was free to make open criticism. For himself he knew of no more opportune time than the present to voice his objection to the naming of state buildings for individuals. Such buildings should be designated by number and not by the name of some board member. Dr. A. H. Madry, of Aurora, followed Dr. Harris. In the course of his talk Dr. Madry stated that there was just and unjust criticism, unjust criticism being largely of a political nature; just criticism relative to the management for the good of the people of the state. Furthermore, the institution being located in the territory of the Lawrence-Stone County Medical Society, that society felt a particular responsibility in looking to the growth and development of the institution. He also stated that the Sanatorium was the most important institution in the state and the state should be ever ready to meet its needs. The state is spending thousands of dollars to protect its game but spends only a small amount in protecting the health of the people.

Applications for membership were received from Drs. Stewart and English. The applications were referred to a committee which reported favorably. After the report of the committee, the following program was given:

"Adenoids," by Dr. Ament of Aurora. Discussion opened by Drs. Rodman and Huffman. Paper by Dr. Terry, of Springfield. Discussion opened by Drs. Madry and Baird. "Injection Treatment of Hemorrhoids," by Dr. Shafer of Billings. Discussion opened by Drs. Roseberry and Wade. "Lightning Stroke," by Dr. Miller, of Aurora. Discussion opened by Drs. Shelton and Smart. Cases of tuberculosis by Dr. Stewart, Mt. Vernon. Discussion opened by Drs. Stevenson and English.

At the close of the regular program of the society the annual election of officers took place which resulted as follows: Dr. Shelton, president; Dr. Rodman, vice-president; Dr. Fleming, secretary; Dr. Stevenson, treasurer; Dr. Ament, reporter; Drs. Henson, Holmes and Wade, censors.

At the close of the election the society adjourned to be entertained at lunch by Drs. Stewart and English.

W. F. AMENT, M.D., Reporter.

MISSISSIPPI COUNTY MEDICAL SOCIETY

The Mississippi County Medical Society held its regular meeting February 6, at Dr. Marshall's office, Charleston. Dr. Smith read a paper on "Scarlet Fever," which elicited quite general discussion and stimulated the members to read up on this disease and on similar eruptive disorders of childhood.

The Society then took up the bills before the Legislature and went on record against House Bills Nos. 52 and 93 (the optometry bill and a bill to create a separate board of eclectic medical examiners respectively) and so notified our representatives.

After discussion of general business the society adjourned.
J. C. BOONE, M.D., Secretary.

NEW MADRID COUNTY MEDICAL SOCIETY

The New Madrid County Medical Society met in the office of the president, T. S. Hollenbeck, Portageville, Tuesday, Jan. 10, 1911. The report of the secretary was submitted and approved.

Several cases of interest were reported by Drs. Killian, Hollenbeck and Sibley. At this meeting the following officers were elected: President, T. S. Hollenbeck, Portageville; 1st vice-president, L. Diggs, New Madrid; 2nd vice-president, C. A. Blackman, Parma; secretary, J. H. Timberman, Marston; treasurer, W. A. Sibley, Marston; Censors, H. A. Killian, Portageville, three years; George Dawson, New Madrid, two years; E. E. Jones, Lilbourn, to fill vacancy of the late J. A. Atkisson, one year. H. A. Killian was elected delegate to the annual meeting of the Missouri State Medical Association. The next meeting will be held at New Madrid, Tuesday, Feb. 21, 1911.

J. H. TIMBERMAN, M. D., Secretary.

PEMISCOT COUNTY MEDICAL SOCIETY

The Pemiscot County Medical Society met in regular session at Caruthersville on Feb. 7, 1911. Dr. Hendrix being absent Dr. Johnson was appointed to act as secretary. Election of officers for 1911 was taken up: Dr. Johnson and Dr. Martin were nominated for president and the vote being taken Dr. Martin was elected. For vice-president Dr. Conrad and Dr. Jones were nominated. Dr. Jones was declared elected. Dr. Johnson was elected secretary by acclamation. Dr. Farris was elected treasurer by acclamation. The report of the retiring treasurer was accepted. The report showed a balance of \$23.35 on hand. The following members paid dues: H. T. Byers, F. A. Mayes, A. R. Conrad, M. H. Hudgens, C. E. Martin, B. F. Jones, J. W. Johnson, M. B. Hendrix and J. C. Farris.

Dr. Hudgens called attention to the fact that members should not make \$1.00 examinations for insurance after having signed an obligation to refuse to do so. Motion was made by Dr. Hendrix, seconded by Dr. Hudgens, that hereafter any members making life insurance examination for less than \$5.00 be expelled from the society. No further business the society adjourned to meet on the second Tuesday in March.

J. W. JOHNSON, M.D.,

Secretary.

PIKE COUNTY MEDICAL SOCIETY

The Pike County Medical Society met in regular session at Bowling Green, Mo., Dec. 5, 1910. The following officers were elected for the year 1911: President, Dr. J. D. Davis; secretary, Dr. John W. Turner; treasurer, Dr. T. Guy Hetherlin.

JOHN W. TURNER, M.D., Secretary.

PLATTE COUNTY MEDICAL SOCIETY

The Platte County Medical Society held its regular monthly meeting at Weston, Missouri, February 1, and passed resolutions condemning House Bill No. 174 relating to automobiles and House Bill No. 52 creating a Board of Eclectic Medical Examiners, now pending before the State Legislature.

Interesting papers were read on "Typhoid Fever," by Dr. J. J. Carter of Weston, and "Intestinal Obstruction," by Dr. J. W. Shultz of Weston. These subjects were ably presented and discussed. This meeting was of especial interest on account of the recent epidemic of typhoid fever in and near Weston.

The following members were present: Drs. J. J. Carter, and J. W. Shultz of Weston; Drs. J. M. Hale, M. H. Moore and A. S. J. Smith of Dearborn; Drs. S. Redman and H. M. Clark of Platte City; Dr. E. R. Hull of Camden Point; Dr. Chas. E. Benham of Parkville; Drs. Doran of Trimble and G. A. Harrel of Kentucky were present as visitors. The Society was entertained by the Weston doctors. The next meeting will be held at Platte City March 1.

A. S. J. SMITH, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

MEETING OF FEB. 1, 1911

Application for membership from Dr. George M. Boteler was read and referred to the censors.

Dr. Kessler announced that a ruling of the U. S. Postoffice Department permitted the mailing of postal cards notifying the city board of health of contagious diseases.

Dr. H. M. Lint presented a patient showing the result of a dislocation of the elbow joint with protrusion of the humerus through the skin.

Dr. P. I. Leonard introduced resolutions against the passage of the so-called optometry bill, now before the State Legislature, which he said would empower incompetent persons to treat diseases of the eye under the claim of fitting glasses only. The resolutions, identical with those passed by the St. Louis Medical Society, were adopted.

Dr. C. R. Woodson spoke in favor of a bill to regulate the taking of expert testimony in the trial courts, and called attention to numerous abuses existing under present laws. It was arranged to discuss this subject further at the next meeting.

Dr. O. B. Campbell read an extensive and instructive paper on "The Prostate Gland." It was discussed by Drs. Jacob Geiger, W. T. Elam and Chas. Geiger. Discussion closed by Dr. Campbell.

MEETING OF FEB. 15, 1911

The application of Dr. George M. Boteler having been approved by the censors, was voted on and he was elected to membership.

The application of Dr. Chas. F. Byrd, for re-instatement, was read, and the question raised as to whether it was in order, or if he should be called on to pay last year's local dues. The secretary was instructed to ask him for an additional \$2 to cover back dues.

Dr. C. R. Woodson presented the arguments in favor of a bill to regulate "expert testimony," and read the proposed bill to be submitted to the Missouri Legislature. Motion that this society recommend to the members of the legislature from Buchanan and Andrew Counties, the enactment of the bill, as read by Dr. Woodson. Carried.

Dr. A. L. Gray opened discussion on "Typhoid Fever," which was further discussed by Drs. C. A. Good, J. C. Sullivan, L. S. Long, A. H. Vandivert, R. Willman and O. B. Campbell. Closed by Dr. Gray.

Dr. Kessler called attention to the readiness of the board of health to consider suggestions from any member of the Society, to improve the sanitation of the city.

HERBERT LEE, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

The St. Louis County Medical Society met at Webster Groves, on February 8 at 2:30 p. m.

Program: "Present Grippe Infection," by Dr. Roy D. Moore, of Olivette. He gave a carefully prepared and interesting report of a case of influenza meningitis with Budzinski identical reflex or neck sign positive and the contralateral or leg sign negative.

Dr. Guibor reported a case of probable influenza meningitis, with recovery following spinal puncture. Dr. Carter spoke of finding a slow pulse and Dr. Townsend spoke of the frequency of the girdle pain. Dr. Metcalfe reported a case of measles with the eruption first appearing on the ninth day.

Dr. Henry Hanson of Des Peres, has been appointed health officer of St. Louis County for two years. The Committee of Health and Legislation was instructed to write to the Congressmen and Senators asking them to support the Owen Bill.

The program for March 8 will be: "Abdominal Pain," by Dr. H. Hanson, of Des Peres; "Points in Physical Diagnosis," by Dr. H. G. Wyer, of Kirkwood.

Members present, Drs. Moore, Carter, Guibor, Metcalfe, Hanson, Dmnnavant, Reynolds, C. L. Armstrong, J. H. Armstrong, Koch, Jensen, Townsend and Brosard.

P. M. BROSSARD, M.D., Secretary.

ST. LOUIS MEDICAL SOCIETY

MEETING OF FEBRUARY 1

The Ophthalmic Section held its meeting on this date.

Dr. Ewing reported a spontaneous absorption of the lens in a patient 70 years of age; also a case of gunshot injury of globe and orbit with bullet in the brain. Discussion by Drs. Hoge, Alt, Green and J. F. Shoemaker.

Dr. Meyer Wiener reported a case of acute mania following cataract abstraction. Discussion was opened by Dr. Hoge, followed by Drs. Higbee and Alt.

Report of Committee on Optometry Legislation was given and on motion duly made and seconded the report was accepted and committee discharged.

A committee composed of Drs. M. H. Post, John Green, Jr., and F. P. Parker was appointed to see the prosecuting attorney concerning what could be done towards putting an end to certain opticians advertising themselves as doctors when they had no right to such claims. Committee to report at the subsequent meeting.

Report of the Committee on Optometry Legislation Appointed by the Ophthalmic Section of the St. Louis Medical Society

On Tuesday morning, January 31, representatives of the committee, Dr. M. H. Post, Dr. John Green, Jr., and F. E. Woodruff, accompanied by Dr. R. E. Schlueter, Dr. Jas. Stewart, the Medical Adviser of the Board of Education, went to Jefferson City to appear before the Committee on Criminal Jurisprudence to which the optometry bill had been referred. A conference was held with some of the members of the legislature and Dr. E. J. Goodwin, Dr. A. H. Hamel and Dr. Frank B. Hiller, secretary of the State Board of Health and Dr. A. W. McAlester, Jr., of Kansas City, who assisted the committee in presenting the opposition to the optometry bill. It is needless here to present the arguments for and against the measure. The bill was introduced by Mr. J. F. Barbee, of Marshall, Saline Co., by request and he was not inclined to push the matter before the committee which gave us most courteous and careful attention and acted promptly. The night before we left we were told that the committee had decided to

report the bill adversely which action virtually kills the bill for the present. It remains, however, for the profession to take active steps towards preventing the necessity for a repetition of this experience. The committee wishes to extend its thanks to all who assisted in the work and also to the Committee on Criminal Jurisprudence before whom we appeared.

MEETING OF FEBRUARY 4

This session was a meeting of the general society and the following program carried out:

"A Preliminary Report of the Use of Cacodylate of Sodium in the Treatment of Syphilis; with Report of Cases," by Dr. O. L. Suggett. Discussion opened by Drs. M. F. Engman and W. W. Graves.

"Acute Gonorrheal Epididymitis. Report of 100 Cases Treated in the Venereal Clinic of the St. Louis Hospital Department," by Dr. C. M. Walson. Discussion opened by Dr. John W. Marchildon.

MEETING OF FEBRUARY 11

The Medical Section conducted this meeting, having for its guest Dr. Winfield Scott Hall, of Chicago, who addressed the Society on "The Medical Profession and Social Hygiene."

The audience was a mixed one, and the interest among both doctors and laymen quite pronounced. A discussion of the subject was indulged in after the conclusion of the address.

MEETING OF FEBRUARY 18

The program of this meeting consisted of the following:

"Report of a Foreign Body in the Bladder," by Dr. Martin G. Fronske and Dr. H. G. Lund.

"Aether Rauseh," by Dr. Wm. T. Conghlin.

MEETING OF FEBRUARY 22

The Oto-Laryngological Section conducted this meeting. The paper of the evening was presented by Dr. C. A. Leavy, his subject being, "The Treatment of Stenosis of the Larynx; Report of a Case of Diphtheritic Stenosis of the Larynx of Sixteen Years' Duration. Operation. Presentation of Patient."

The discussion was opened by Dr. L. K. Guggenheim.

MEETING OF FEBRUARY 25

The Surgical Section held its meeting on this evening. The program consisted of a paper by Dr. Louis Rassiour entitled, "Report of Two Cases of Tumor of the Neck, with Intrathoracic Pressure Symptoms. Illustrated."

The election of officers for the ensuing year resulted as follows: M. G. Gorin, Chairman; Roland Hill, Secretary and Editor; Edmund A. Babler, Treasurer.

MEETING OF FEBRUARY 28

This meeting will be conducted under the auspices of the Section of Obstetrics and Diseases of Women, for which the following program was arranged:

"Demonstration: Acute Hydramnion," by Dr. Fred J. Taussig; "Cyclic Changes in the Mammary Ovaries," by Dr. Leo Loeb; "Static Disturbances Associated with Laxity of Ligaments and Lowered Muscular Tone," by Dr. Nathaniel Allison; "Indications and Technic of Manual Dilatation of the Parturient Uterus," by Dr. H. J. Storrs; "Dilatation with Bossi's Instrument," by Dr. W. H. Vogt.

MEETING OF MARCH 1

This meeting will be conducted under the auspices of the Ophthalmic Section. The program consists of a paper by Dr. John Green, Jr., on "Complete Traumatic Aniridia with Injury to the Lens; Recovery with Useful Vision. Case Report and Presentation of Patient."

CATALOGUE ST. LOUIS MEDICAL LIBRARY **3525 Pine Street**

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THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

APRIL, 1911

Number 10

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION COMMITTEE { M. B. CLOPTON, M.D., Chairman
A. W. McALESTER, Jr., M.D.
M. C. SHELTON, M.D.

ORIGINAL ARTICLES

COLON BACILLUS PYELOCYSTITIS IN INFANCY AND CHILDHOOD*

DAVID E. BRODERICK, M.D.
KANSAS CITY, MO.

The infection of the urinary tract by the *Bacillus coli* is a grave and often an obscure affection in infants and young children. An invasion of the urinary tract by the colon bacillus may result in: (a) simple bacilluria; (b) cystitis; (c) pyelitis; (d) suppurative nephritis. This classification of Thompson's is perhaps too finely drawn for it is more practical to combine (b) and (c) in one group and assign the name pyelocystitis to cases occurring in this group. This view is obtained despite the report of Rovsing of twenty-nine cases of *B. coli* pyelitis in which the urine was loaded with colon bacilli, yet the mucous membrane of the bladder remained normal; the difficulty of differentiating either by the urinary, symptomatic or objective symptoms the localization of the infection.

Simple Bacilluria.—The colon bacillus invades the urinary tract but its toxins do not produce an inflammatory reaction. Clinical manifestations of their presence may be absent, or the child may be subject to fever attacks, prostration dysuria, diminution of urine excretion, etc. The urine on examination will be found loaded with colon bacilli. These attacks are often diagnosed febricula or bilious attacks. The attacks are ephemeral in character. The colon bacilli may be absent from the urine between attacks.

Baby K., age 14 months, female, breast fed until 10 months of age. From history it is judged she was well nourished. When 12 months of age, during the summer months, had a rather severe gastro-intestinal derangement, which was treated as indigestion. I saw her two months afterward. There was a history of pronounced fever attacks, prostration and much pain on urination. There had been a marked loss of weight

and the skin had that muddy pallor seen in these colon infections. She was very fretful at night and the mother had noticed that there existed a close relationship between the crying spells at night and the act of urination. Temperature in these attacks reached as high as 106 (rectal). The attacks occurred about every fourteen days. A fresh specimen of urine was obtained which was found to be acid, and swarming with colon bacilli (pure culture obtained). No pus cells or casts. Physical examination was negative. Under potassii citratis and urotropin the patient has gained markedly in weight and has had but two attacks since at intervals of four months, the bacilli being present in the urine during the attack.

Baby A., age 2½ years. Male. Nutritional disorder of early infancy. Convulsions when six months of age due to intestinal disturbance. Three severe attacks of capillary bronchitis between first and second year. The baby had a severe ileocolitis when 18 months of age, from which he made a slow but entire recovery. Two months following this ileocolitis attack there developed a continuous temperature ranging from 99 a. m. to 102 in the evening. This temperature lasted for four months, being interrupted by a normal temperature for but a few days at a time; there was a cough present which was inclined to be paroxysmal; the diagnosis of tuberculous bronchial lymph gland was made at this time. Moro's and von Pirquet's tests were negative. The child contracted whooping-cough about this time and was removed to Colorado. Returned three months later; he still gave a history of running a slightly elevated temperature with a history of dysuria and very much diminished urinary excretion. The examination showed numerous colon bacilli. Under appropriate treatment he is making very much better progress.

Mary M., age 4 years. Child brought to me on account of a diurnal and nocturnal enuresis. Physical examination normal. No adenoid vegetations nor tonsil enlargement. Three months previous there was some indefinite febrile attack lasting for about two weeks. Child had received various treatments for the enuresis but without any apparent improvement. A microscopical and cultural examination revealed the colon bacilli. Routine therapy advised and patient at last report was doing nicely.

Suppurative Nephritis.—The invasion of the kidney is of grave moment. The urinary findings are practically the same except that there is the addition of casts. "Albarran has shown that in cases of infection by the *Bacillus coli* the organisms ascend the medullary canals until they reach nearly to the cortical tubules, where they form large masses. They can also be seen traversing

* Read at Medical Review Club, Kansas City, Nov. 10, 1910.

the walls of the tubules and passing into the lymphatic spaces. In streptococci infection, the infection is mostly by the blood-current and lymphatics." These areas may resemble the picture of a tuberculous kidney on section. Dr. Frank Hall exhibited such a specimen at the meeting of the Academy of Medicine.

Cystitis or Pyelocystitis.—This group rather represents an intensity of infection than a separate entity. There is present in the mucous membrane of the urinary tract an inflammatory reaction. The systemic reaction is generally pronounced. The fever curve may be of the remittent type or the continuous, simulating, in some cases, a typhoid temperature very closely. The urinary findings are characteristic. The urine resembles a bouillon culture, is acid in reaction, contains many pus cells, swarms with colon bacilli, but no casts are found. Caudate cells may be seen with bladder epithelium. The tenesmus may be marked and the child resists the act of micturition on account of pain. The quantity of urine is generally reduced and in some instances markedly so. Rigors may accompany the onset. I might call attention here to the fact that a cystitis or a pyelocystitis is one of the few conditions in which a real chill is seen in a child. The condition of these little patients is grave and they have the appearance of being markedly ill. The three following cases are of this group.

Mary F., age 2 years. Family history negative. Baby had an attack of ileocolitis of moderate severity two months previous to her present illness. Ten days previous to my examination child was out of sorts and was noticed to urinate less frequently and the act evidently was painful. A temperature of 99 F. at this time. The temperature increased gradually for seven days when I was asked to see her. She had on first examination a temperature of 106 F. She appeared acutely ill. The pain preceded urination and was apparently severe. There was a slight cough but on careful examination the chest was found normal. She had a rigor lasting thirty minutes. She had a peculiar muddy color. The mucous membranes were pale. Abdomen slightly distended. No tenderness over vesical region or rest of abdomen. The spleen was not palpable. The liver was one finger breadth below the costal margin. Urine in appearance resembled a bouillon culture, specific gravity 1020, acid, albumen (light ring), no sugar or phosphates. Pure culture of colon bacilli obtained. Loaded with polymorphonuclear leukocytes. No bacilli seen within leukocytes. Some cubical epithelium. No casts. Blood examination showed a normal red count. A leukocytosis of 20,000. Hemoglobin 70 per cent. Great deal of mucus in stools. Widal reaction was negative. The course of the disease continued for 18 days. The temperature fell by lysis. The temperature ranged daily between 102 F. in the morning to 106 in the evening. Cold packs did not affect it markedly. I again examined her 6 weeks after discharge. She was pale but was improving daily. Was gaining in weight. Physical examination negative. The urine was free from pus cells but some colon bacilli could still be seen. The treatment given will be returned to. The infection in this case resembled a typhoid and no doubt many such cases are so diagnosed.

Baby P. G., age 20 months. Female. Had a rather severe attack of ileocolitis during summer. Two

months after she was discharged she again became ill with a high temperature (104 F.), dysuria and prostration. Physical examination was negative. A fresh specimen of urine was obtained which was found to be acid, contained a slight amount of albumen and numerous pus cells. The urine was found loaded with colon bacilli and culture gave an excellent growth of same. The temperature was markedly remittent, dropping to normal in the morning. She ran an evening temperature for a few days and then remained normal. Blood examination showed 4,800,000 reds; 20,000 leukocytosis and a hemoglobin estimation of 80. She left for the South. In a communication she is reported as well.

M. G., age 3 years. Female. Family history negative. Nutrition disorder in early infancy, consisting of a chronic ileocolitis. For the last two or three weeks has been listless, desiring to be carried. Seems to have temperature at times. She cries, her mother says, when her bowels move and does not wish to go to the toilet. She vomited a few times. The attention of the mother had not been drawn to the urinary tract. The mother had not noticed anything in the patient except that she was listless, was losing in weight, had a capricious appetite and cried when her bowels moved. Physical examination was negative except a moderate degree of rickets accounted for no doubt by a condensed milk feeding during early infancy. Urine examination: bouillon culture in appearance; specific gravity 1015, acid, slight albumin ring, no sugar, etc. Numerous pus cells. The urine was loaded with colon bacilli. There was a leukocytosis of 18,000. She improved markedly under the therapy advised.

Route of Infection.—(1) Ascending; (2) hematogenous; (3) continuity. The much greater frequency in female children could be used from an anatomic consideration as an argument in favor of an ascending infection. This sex incidence is rather striking, as evidenced by the following:

Thompson's 25 cases, 21 were females.
Jeffrey's 37 cases, 31 were females.
Abt's 21 cases, 20 were females.
Escherich's 11 cases, 10 were females.
Finkelstein's 8 cases, 7 were females.
Box's 18 cases, 17 were females.
Broderick's 6 cases, 5 were females.
Morse's 50 cases, 30 were females.

It is peculiar that in Morse's fifty cases there should be twenty males. The preceding history of an ileocolitis in each of my cases may perhaps admit of an argument for the theory of infection of continuity. The hematogenous theory has not many adherents. Finkelstein is rather emphatic in his protest against the hematogenous route. Blood-cultures and films have been found almost always negative in these cases, although in colon bacillus arthritis complicating appendicitis a blood-culture has been found to give a growth of colon bacilli in pure culture. In septic pneumonia and a few cases of dysentery, blood-cultures of colon bacilli have been demonstrated. The limitations of cystoscopy and ureteral work in children has militated against accurate observation of the pathologic localization of the process. The observations of gynecologists that the affection may be unilateral has not been entirely verified in children, although John Thompson reports a case limited to one pelvis of the kidney.

Symptoms.—The previous history is, I think, important in these cases. There is quite a diversity of opinion in the importance and presence of an intestinal affection. In Thompson's cases "three certainly and probably five were suffering from infantile scurvy, three at least from severe dyspepsia and diarrhea and others from a lesser degree of indigestion: one had profound anemia and one otitis media. In three the symptoms set in about a month after an influenzal attack. Eleven were said by mothers to have been in good health when the symptoms set in." In thirty-seven of the cases reported from the Hospital for Sick Children by Jeffreys, the following affections preceded the advent of the infection:

22 cases were associated with gastro-intestinal trouble.

26 cases commenced with bladder symptoms.

7 cases commenced with symptoms of renal infection.

10 cases commenced with general symptoms not pointing to any particular system.

I believe in my six cases all had a history of more or less ileocolitis, within, say, six months of the urinary infection. It may also be noted that "in many of the cases of bacilluria associated with typhoid, scarlet fever, measles and diphtheria the organism present is the colon bacillus." Thompson noted that "at the outset a noticeable shiver occurred in five, a well-marked rigor in ten and a distinct convulsion in two." In only one of my cases was there a rigor. The rigor lasted for twenty minutes. The temperature curve is not characteristic and may be, as stated, highly remittent or continuous. There is always a moderately severe leukocytosis. Vulvitis or vaginitis was never observed in Thompson's cases. There was a slight vulvitis in two of my cases and in seven of the thirty-seven cases reported by Jeffreys. The urine findings are the most important and on these findings is the diagnosis made. Sweating is sometimes profuse. In pyelonephritis, when occasional profuse sweating occurs, it is not as a sequence to a rigor. In pyemia the sweating follows the rigor (Morris). Enuresis is only seen in the bacilluria cases. Thursfield believes that when there is found a diurnal enuresis singly it is significant of colon bacillus bacilluria.

Pathology.—I will not attempt to give a detailed account of the pathology of the affection, but rather confine myself to a narration of some opinions voiced by leading urologists.

Guyon, Albarran and Halle hold that the colon bacillus plays an important rôle in suppuration of the kidney. Rovsing is of the opinion that there must be some change in the mucous membrane of the urinary tract preceding the infection as evidenced by his report (cited in this paper) of twenty-nine cases of colon bacillus pyelitis in which the mucous membrane of the bladder remained normal. The phagocytic activity of the leukocytes is practically *nil* in these cases

as demonstrated by Dudgeon. He contrasts this with the phagocytic action seen in typhoid. No studies were made in my cases by Dr. Trimble, to whom I am indebted for the laboratory work, on the phagocytic activity of the leukocytes. In regard to the frequency and association of the divers organisms found in these cases, Forbes states (quoted from Box, *Brit. Med. Jour.*) that in an examination of eighty-eight cases at the Great Ormond Street Hospital for Children in six years, *B. coli* were found to be the only infecting organism in fifty-six; in ten others it was combined with staphylococcus or streptococcus. In twelve cases staphylococcus only was obtained; in five cases *B. proteus vulgaris*; in three cases streptococcus and in two cases Gaetner's *B. enteritidis*.

Diagnosis.—The condition depends on the microscopic and cultural examination of the urine. When we recall the infrequency of microscopic examinations of the urine in children and even the rarity of routine examination of the urine in infants and young children, it is not difficult to find an explanation for the apparent ignorance of this infection by the profession at large. The symptomatology is often vague and a diagnosis of febricula or bilious fever covers so many shortcomings that these little sufferers are allowed to pass, in many instances, from a simple bacilluria to a cystitis, pyelocystitis or suppurative nephritis. By virtue of the rewards of therapy in these cases an impetus toward a more careful examination should be fostered. When a child is running a high temperature, rapid pulse and prostration, without findings on physical examination to account for same, and to this is added the age, sex and history of a previous ileocolitis, a diminution of the urinary secretion, dysuria or perhaps enuresis (simple bacilluria), colon bacillus infection should be thought of and a fresh specimen of the urine obtained.

The condition is not infrequently mistaken for malaria, meningitis, febricula and typhoid. Dudgeon and Ross conclude that although the opsonic and phagocytic indices of the patient's blood are low, they are not very reliable; also that the agglutination test is of no value. They point out that normal human serum has no bactericidal effect on the *Bacillus coli*.

Prognosis.—The disappearance of symptoms does not necessarily signify the freedom of the urine from colon bacilli. The course is not infrequently chronic. In thirty-seven cases reported by Jeffreys ten ran a severe course and of these three died of the disease. Of the whole series of thirty-seven cases only eleven left the hospital cured. Simple bacilluria tends more toward chronicity. Only two of my six cases are free at this writing from colon bacilli in the urine.

Treatment.—Thompson's method of treatment of the cases, I believe, is the most efficacious. It

consists in the administration of potassium citrate (48 to 60 gr., increasing to 120 to 180 gr. in the twenty-four hours). There will be noticed a rather marked change as the urine becomes alkaline. Urotropin in 3 to 5 grain doses is frequently administered. Dudgeon claims that urotropin is powerless against the colon bacillus. Personally I combine the two methods, giving the citrate in increasing doses every two hours until the urine is alkaline. I then give urotropin in 3 to 5 grain doses three times daily. The remaining treatment is that of any infection of the urinary tract.

Since the preparation of this article there have appeared in the November issue of the *Archives of Pediatrics* two able articles on pyelocystitis in infancy. Friedenwald's deals particularly with the pathology, and is a commendable study of Finkelstein's material.

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SOME OBSERVATIONS ON EXPERIENCES WITH TUBERCULIN THERAPY IN DISPENSARY PRACTICE *

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The following observations are based on a study of the recent literature on tuberculin therapy and a personal experience with seventeen cases.

Between tuberculin therapy in city and sanatorium practice there is a well-defined distinction. It is important that the practitioner be not misled into thinking that tuberculin treatment is one and the same thing everywhere. When reading reports of results obtained in well-conducted sanatoria one should realize at once that the same cannot be expected in city practice, with its differences in climate and environment. This is so because tuberculin alone, in the light of present-day knowledge of its physiologic action cannot be looked on as a specific. Ignorance on this point has caused the much to be regretted antagonism to this important therapy, a feeling which has persisted even to the present time. For if we are to derive benefit from its employment we must learn, for instance, that unlike quinin and other remedies it is not definitely specific. To obtain results with quinin in malaria it matters little whether the patient lives in a hovel or a palace, but with tuberculin in tuberculosis it is an entirely different matter. But in spite of this evident handicap, astonishingly good results have been obtained in some cases in the very heart of the city slums, and this will emphasize the fact that it should be employed more extensively in rural and sanatorium practice.

The material for this paper was obtained from a study of seventeen cases, twelve of which were observed by me and five by my successor, Dr. A. C. Henske, at the Municipal Clinic. Each patient was treated for a period of from two months to one year. The conclusions in the main are the same as those of other observers. However, additional thought on this subject at the present time is relevant. During this experience some interesting phenomena were observed to which many investigators have not given due recognition.

Most of the favorable reports concerning tuberculin therapy have dealt with incipient cases. In a dispensary practice, limited almost to an indigent class, typical incipient cases of tuberculosis are infrequently seen. The vast majority of cases are of the pronounced or advanced variety and only a smaller percentage of cases are seen fairly early in the course of the disease. So it was found that if tuberculin was to be experimented with it would have to be employed in a variety of cases and after their incipency. Of the first five cases to be discussed, one was incipient, and the rest were marked cases. The *Bacillus tuberculosis* was found in the sputum of all but the incipient case. Twelve were well advanced forms, one case complicated with a laryngeal tuberculous ulceration.

In the pronounced or marked cases and in the incipient case, tuberculin was employed with the hope of producing an improvement and possibly a cure. In the advanced cases no such optimistic view was entertained but the therapy was employed solely in an experimental way to determine if it possessed any efficacy in alleviating symptoms.

CASE 1.—Moderately advanced (Dr. Henske). M. W., white, female, aged 31 years; applied at clinic Aug. 7, 1910. Examination revealed an early involvement of both pulmonary apices. Her physical condition in general was fair; her weight 106 pounds; temperature usually exceeded normal by .5 to 1 degree in the evening. On August 19, she was given .00005 mg. bacillin emulsion. No definite reaction or rise of temperature was observed. Her fever subsided and has continued normal. Her last dose of tuberculin was .0005 mg. The general régime is about the same as prior to the tuberculin administration. She has been doing remarkably well and has gained 10.5 pounds in five weeks. She is still under treatment.

CASE 2.—J. B., white, female, aged 36 years; married. Applied to clinic Nov. 9, 1908. Eight months before she had developed a cough which progressively grew worse. She now has a cough, profuse purulent expectoration, fever and chills, pains about the body and night sweats. She is somewhat emaciated and considerable muscular atrophy is noted. Her weight is 105 pounds; height 5 feet 1 inch. Temperature, 99 degrees F., pulse 120, respiration 24. The chest is thin. Dulness is present over apex of right lung anteriorly to lower border of infraclavicular space and posteriorly to spine of scapula. Breath sounds are harsh and accompanied by sonorous and subcrepitant râles to fourth rib anteriorly and between the scapula and spine to inferior scapular angle posteriorly, with a similar condition posteriorly on the left side. Under a

* From the Municipal Free Clinic for Tuberculosis, St. Louis.

general tonic and hygienic régime, she improved gradually gaining $4\frac{3}{4}$ pounds in two months. At the end of a year she weighed $116\frac{1}{4}$ pounds, a gain of $11\frac{3}{4}$ pounds. At this time, however, she coughed violently, suffered pains in the chest and back and definite physical signs of tuberculosis were still evident. On Nov. 24, 1909, .001 mg. Koch's Old Tuberculin was injected, followed at intervals of five or six days by other injections in slowly ascending doses, i. e., .002, .003 mg., etc. When she had received her third injection her weight was $114\frac{1}{2}$ pounds. After this she experienced several general reactions following the administering of tuberculin, characterized principally by fever. At this time that which appeared to be a focal reaction was discovered in the apices of both lungs. On January 27, she weighed $111\frac{1}{2}$ pounds. On February 8, she was feeling well. February 25, her weight was $113\frac{1}{2}$ pounds. March 9, an examination of the sputum was negative. She continued to feel well and had no cough. No further examinations of the sputum have been made, as at no time since the last examination has there been any expectoration. July 28, she weighed 113 pounds, which is a very good weight for one of her height. Her muscles were firm. She has had no fever at any time since the early tuberculin reactions. On the above date examinations of chest showed some depression of right supraclavicular space and slight impairment of percussion resonance in left infraclavicular region. Otherwise the lungs were entirely negative. August 15, she received 10 mg. of tuberculin which was her maximum dose. Following this the dosage was gradual decreased and on October 3 the minimum quantity, .001 mg., was injected. An examination of her chest at that time and since has revealed only some depression of the right supraclavicular space. Evidently the tuberculous foci in her lungs are healed, and we are justified in concluding that she has been cured of tuberculosis. She reported December 15 in splendid condition.

CASE 3.—H. K., white, male; aged 34 years; married; clerk. Applied at dispensary Jan. 17, 1910; recommended by Dr. Schweninger of St. Louis who had treated him up to that time. He began coughing eight months ago and two months later had a hemorrhage. Now complains of cough, large mucopurulent expectoration, night sweats, fever in evenings, pain in left side; has lost some weight. Chest is thin and flat; expansion poor. Clavicles and scapulae are very prominent; there is some infraclavicular depression. On right side over upper lobe is impaired resonance and a marked increase in vocal fremitus. Subcrepitant râles are heard anteriorly to the fourth rib. On the left side over upper lobe is found a similar percussion note and uneven loud respiratory sounds. Pulse 95. Temperature 99.6 degrees. Respirations 28, taken at 10 a. m. January 30, Koch's Old Tuberculin, .0005 mg., was injected. Weight $132\frac{3}{4}$ pounds. In one week he gained $4\frac{1}{4}$ pounds. What appeared to be a focal reaction and a slight rise of temperature was observed, lasting about one week. The dosage was gradually increased by .0005 mg. at each injection. On Feb. 26, three weeks after the beginning of the treatment, he weighed $138\frac{1}{4}$ pounds, a gain of $5\frac{1}{2}$ pounds. He was feeling well and had only an occasional small evening rise of temperature. Except in the employment of tuberculin there had been no change in the general treatment. At this time he entered the State Sanatorium for Tuberculosis at Mt. Vernon. On May 12, he came to the clinic, feeling fine and weighing $148\frac{1}{2}$ pounds.

CASE 4.—A. DeF., white, female, aged 32 years, single; employed in a shirt factory. Applied at clinic about March 25, 1910. Gives history of cough commencing five weeks ago following an attack of grippe. Now has a cough, large purulent expectoration, dyspnea on slight exertion, pain in right side, insomnia from cough and soreness of throat, evening rise of tem-

perature and night sweats, and has lost 15 pounds. Her weight on entering clinic was 110 pounds. Examination reveals some emaciation and atrophy of chest musculature. An extensive consolidation of the right upper lobe was found, characterized by dullness over supraclavicular, clavicular and infraclavicular regions and posteriorly to spine of scapula. Also short rough respiratory sounds and subcrepitant râles were present. Posteriorly about the inferior angle of right scapula similar findings were evident. Over left supraclavicular regions were signs of early involvement. On March 29, Koch's Old Tuberculin, .0005 mg. was injected and repeated in gradually increasing doses, .0005 mg. every six days. On April 9, after two injections she weighed $112\frac{1}{4}$ pounds, a gain of $2\frac{1}{4}$ pounds in twelve days. An increased number of râles and harsher breath sounds were noticeable over involved area. She complained of an inflammatory swelling at site of the first injection. Examination revealed a well defined, deep induration about the size of a silver quarter. A similar infiltration also followed the third injection. By April 20 she experienced no subjective symptoms of tuberculosis. On April 26, she weighed 115 pounds and felt fine. May 17 she received .007 mg. tuberculin. Her weight was $118\frac{1}{4}$ pounds, a gain of $8\frac{1}{4}$ pounds in $7\frac{1}{2}$ weeks. At this time she suddenly left the city for Oklahoma and was lost sight of for nearly a year. Reported April 2, 1911. Weight 127 pounds; no symptoms, no sputum; lungs apparently negative; feels fine. Lived in county but received no tuberculin.

CASE 5.—Mrs. E. M., 34 years. Applied about July 15. For the past two months she has had violent persistent cough, fever in evenings, suffered anorexia, and has lost 5 pounds in weight. Examination revealed catarrhal changes in left pulmonary apex with an occasional subcrepitant râle. When after one week no improvement was noticed, tuberculin treatment was instituted. A focal reaction was noticed almost immediately, lasting about a month. Improvement also began from the time of the first injection; all symptoms have disappeared; she has gained 5 pounds. Examination of the lungs shows slight inspiratory unevenness and expiratory prolongation at site of disease. No bacilli were found. This is an incipient case.

The five foregoing cases of tuberculosis improved in a most remarkable manner during the administration of tuberculin. Whether or not the good results depended in any way on the tuberculin can only be judged from the unusually rapid improvement which occurred in all of them, but this cannot be proved absolutely. However, the following record of results is surely more than mere coincidence, for it shows a definite relation between the therapy and the treatment observed in each case:

Patient No. 1 was gradually though not markedly retrograding. She was losing weight. There was little or no change in the general medical and hygienic régime, but after tuberculin therapy was instituted she gained $10\frac{1}{2}$ pounds in five weeks—an improvement almost beyond belief.

Patient No. 2 had been gaining in weight, but retained violent cough and physical signs of tuberculosis. The general treatment continued the same but during the time tuberculin was administered she made an undoubtedly complete recovery.

Patient No. 3 was recommended by a physician who had employed all the medicinal and

hygienic methods possible in a city, but found his patient rapidly growing worse. The treatment instituted at the clinic differed from it only in so much that tuberculin was administered. He immediately improved subjectively and objectively, all symptoms disappeared and he gained weight at an astounding rate.

Patient No. 4.—This was a pronounced case and most rapid in its development. She had lost 15 pounds in five weeks. This patient, a very intelligent woman, had been taking excellent care of her person. After two injections of tuberculin she gained $2\frac{1}{4}$ pounds. The general treatment had continued about the same. At this time, acting on my suggestion, she moved from a moderately well settled district to the suburbs. Tuberculin was continued and at the end of seven and a half weeks she had gained $8\frac{1}{4}$ pounds and experienced no symptoms. It cannot be denied that tuberculin was instrumental in her improvement.

Patient No. 5 gives numerous indications that she is on the road to recovery.

The cases detailed above form a very small number, to be sure, but, in addition to the many cases cited by other clinicians, should act as a stimulus for further clinical research in this direction, and should help to strengthen the position tuberculin is beginning to hold in modern therapy. That tuberculin alone was responsible for the remarkable improvement in the cases cited may possibly be disputed. Granting this point, the bulk of the evidence points to the fact that the improvement commenced with the initial employment of tuberculin and continued throughout its administration. The same general treatment was continued; therefore it is reasonable to suppose that the tuberculin was intimately related to the favorable change noted in each case. This, too, occurred in an environment not nearly as favorable as that which may be found in health resorts and sanatoria. Yet we know that from the latter institutions many cases of comparatively early tuberculosis not receiving tuberculin return to their homes after prolonged periods of treatment without having recovered, and if improved, usually suffer relapse. It would seem logical in view of the fact that many patients in city environs are helped by tuberculin, and many, on the other hand, after extended periods of sanatorium treatment do not recover, that tuberculin should supplement the treatment in the latter institutions. Such practice has been instituted in many of the German and in a few American sanatoria. Lowenstein,¹ Griffin,² Floyd and Hawes,³ and others have recently issued unusually favorable reports based

on large numbers of cases. Tuberculin should be employed more extensively in city practice in cases where patients cannot obtain the benefits of sanatorium treatment. The day of prejudice and indifference due to fear and ignorance of the uses of this remedy is fast on the wane and it will behoove the physician who desires to keep abreast of the best in modern therapy to acquaint himself with this fact.

It will not be within the province of this paper to discuss in any detail the dosage of tuberculin or the varieties that may be employed. Suffice it to say that the above described results were obtained with bacillin emulsion in Dr. Henske's case, and with Koch's Old Tuberculin in my cases. In the former the minute quantity of 0.00005 mg. was the initial dose and in the latter 0.0005 mg. The dosage was gradually increased every five or six days, depending on the amount of reaction which resulted. In one case as much as 10 mg. of Koch's Old Tuberculin was injected at one time. There should be no hesitation in giving even much larger doses when the indications are present, providing the maximum is reached gradually.

Tuberculin Therapy in Advanced Cases.—In the next twelve cases to be reviewed tuberculin was not employed with the intention of producing a cure but to gauge its value as a palliative measure in the treatment of symptoms. All these cases were of the advanced variety, some of the slowly progressive chronic form, others rapid in their development.

CASE 6.—P. M., white male, 38 years, laborer; applied Dec. 14, 1909. Commenced coughing seven weeks ago. Now has enough, expectoration and dyspnea on slight exertion. Has lost 25 pounds. Temperature, 98 F. Pulse, 120. Respirations, 18; weight 130 $\frac{1}{4}$ pounds. Dulness over entire left lung; diminished, almost absent, breath sounds; later subcrepitant and musical râles. Jan. 10, 1910, his weight was 127 pounds. Tuberculin injections (Koch's Old) commenced and continued until April 29. Lost two pounds, but looked and felt better and coughed less. He developed no fever while under tuberculin treatment. This patient was a heavy drinker.

CASE 7.—A. K., white female, 26 years. Applied Feb. 24, 1910. Trouble dates back four years. Has had nearly all the symptoms of a progressive pulmonary tuberculosis. Greatly emaciated; weighs 86 pounds, having lost 20 pounds. Extensive involvement of both lungs. Grew worse during two months of treatment, weighed $85\frac{1}{2}$ pounds. Tuberculin injections were instituted. She improved symptomatically and at the end of two and a half more months weighed 87 pounds, looked and felt better and for the first time in three years was without fever.

CASE 8.—L. K., sister of Patient No. 7. Age 28 years. Applied Feb. 24, 1910. Has always been in close association with her sister. Her trouble began fifteen months ago. Has been rapidly progressive with great loss of weight, fever, chills, night sweats, and severe cough and pains in chest. Weight $96\frac{1}{4}$ pounds. Extreme involvement of both lungs and signs of an active bronchitis. April 5, she weighed $92\frac{3}{4}$ pounds. Tuberculin treatment was begun. She continued losing ground and on June 6, weighed $89\frac{1}{4}$ pounds. All her

1. Lowenstein, E.: Deutsch. med. Wchnschr., Berlin, Sept. 8, 1910, xxxvi, 1654.

2. Griffin, W. A.: Boston, Med. and Surg. Jour., July 28, 1910, p. 131.

3. Floyd and Hawes: Boston Med. and Surg. Jour., Jan. 10, 1910, p. 1.

symptoms persisted and grew worse. After nine weeks' trial tuberculin treatment was discontinued.

CASE 9.—J. M., white male, age 50 years. Laborer. Applied Jan. 19, 1909. Sick three years. Has cough, pain in left side, and large hemorrhages. Weight 126 pounds. Definite signs of cavity formation about size of an orange in left upper lobe. Tuberculin was first injected April 28, 1910. At the end of one month his weight was 128¾ pounds; his symptoms less pronounced and it seemed as if the progressiveness of his trouble was somewhat arrested. By August 2, he had suffered several hemorrhages, and the symptoms had renewed their former severity. Tuberculin was discontinued.

CASE 10.—C. M., white male, 37 years, cook. Applied Nov. 1, 1909. One daughter had died of tuberculosis, while his wife and another daughter have the disease. He has been sick two years with the most trying symptoms of tuberculosis of the lungs, and subsequent involvement of the larynx. He has lost thirty pounds and is markedly emaciated. Fever usually high. Advanced involvement of right upper lobe, similar though less pronounced condition in left upper lobe. Condition progressively grew worse, while he attended the clinic. Tuberculin was administered April 28, 1910, and continued until May 22, when it stopped, as no beneficial effect was observed. This patient was a heavy drinker. He died July 16, 1910.

CASE 11.—L. W., white male. Aged 18 years. Shoemaker. Applied Jan. 17, 1910. Sick nearly a year. Has all the signs of an advanced pulmonary and laryngeal tuberculosis. Great pain in throat, and hoarseness. Extensive destructive involvement of entire left lung. Throat examined by Dr. R. P. Scholz, who found tuberculous laryngitis and tuberculous ulcerations of adenoids and tonsils. Patient usually speaks only in faint whisper. Tuberculin was injected Feb. 10, 1910. March 5, he felt better and was breathing easier. March 18, he stated that he suffered no pain in the throat. April 27, he was able to speak louder and more distinctly. Part of this time his throat received local treatment. However, during this improvement in some of his symptoms he progressively grew weaker and lost weight. About June 15, he began to sink rapidly, and on July 7, he passed away.

CASE 12.—A. R., white male, 40 years. Applied about January 15. Has advanced involvement of both upper lobes and also tuberculous ischio-rectal fistula. He has lost weight rapidly, has violent persistent cough, dyspnea, pains in chest, profuse purulent expectoration, fever and night sweats. General symptomatic treatment for period of a month of but little value. Tuberculin treatment instituted. Gradual improvement of cough; could sleep nights, dyspnea improved; fever diminished; no further loss of weight, felt much better. Appeared as if progressiveness was partially stayed. In August for some reason unknown to the writer tuberculin was suddenly discontinued, and immediately patient grew worse and died shortly afterward.

CASE 13.—A. N., white female, 26 years of age. Applied at office Sept. 27, 1910. Has had tuberculosis nearly four years. At State Sanatorium nearly a year and a half. Has lived in the open air in a tent for the past three years. Very intelligent young woman and is doing all in her power to get well. Has extensive consolidation left upper lobe with all the signs of a moderately advanced involvement. Some signs also in right apex. Daily temperature ranges from 99 to 101.5 degrees in evening. Pulse from 90 to 110. Face flushed. Has cough and purulent expectoration. Weight 127 pounds. Appears well nourished. Condition remained the same one week and then tuberculin treatment was instituted. She increased in weight at once and has gained 10¼ pounds in two and one-half months. She feels better. Her cough has improved and her

fever has not reached 100 degrees in the past three weeks. She is now under treatment.

CASE 14.—(Dr. Henske's.) T. L., white male, aged 33 years. Applied Aug. 2, 1909. Sick about two years. Marked consolidations of both apices. Condition slowly progressive. Distinctly chronic. Weight 132¼ pounds. Tuberculin (O. T.) commenced Aug. 9, 1910. Up to present time patient has been doing well; cough has diminished considerably and he is increasing in weight. Patient is negligent of his treatment, not taking it regularly. No deleterious consequences have followed any of the tuberculin injections.

CASE 15.—(Dr. Henske's.) G. D., white male, aged 48 years. Applied April 29, 1910. Has an advanced tuberculosis with marked involvement of the left upper lobe. Weight 109 pounds. Markedly emaciated. Tuberculin (O. T.) treatment instituted August 5. Two months later patient showed some improvement. His cough was allayed. There was no gain in weight.

CASE 16.—(Dr. Henske's.) L. W., white female, aged 33 years. Applied July 19, 1910. Marked involvement right upper lobe. Weight 96½ pounds. Physical condition fair. Tuberculin treatment (bacillin emulsion) instituted Aug. 25, 1910. There was a rise of temperature from normal to 101 degrees after the initial dose of .00005 mg. Apparently no improvement has resulted and she has lost two pounds.

CASE 17.—(Dr. Henske's.) C. F., white male, aged 36 years. Applied July 5, 1910. Marked involvement of both upper lobes was found. Physical condition poor. Weight 111¼ pounds. Tuberculin treatment was instituted Aug. 8, 1910. The same was discontinued September 1. No improvement was noted, he was feeling worse and he had lost 3¼ pounds.

It will be observed that Patient No. 6 appeared and felt better and coughed less during the administration of tuberculin. Patient No. 7 improved symptomatically, gained slightly in weight, looked and felt better and for the first time since disease has been pronounced has been without fever. Patient No. 9, suffering with a large cavity in the lung, gained 2¾ pounds in one month. His symptoms were less pronounced and apparently the progressiveness of his trouble was arrested for a time. Patient No. 11, afflicted with a violent form of tuberculosis involving both the lungs and throat, felt better for a while, complained less of dyspnea, and articulation was less difficult for a period lasting more than a month. Patient No. 12 improved noticeably. Patient No. 13 has gained 10¼ pounds in two and one-half months, which is very remarkable. Patient No. 14 felt better, coughed less and gained in weight. Patient No. 15 showed improvement and cough was relieved.

As has been shown, eight out of twelve hopeless cases were benefited to such an extent that their suffering was mitigated appreciably. Fever was not considered a contra-indication to the employment of tuberculin. Many clinicians oppose its use when the patient's temperature is 100 F. or more. In all but two of the twelve advanced cases the temperature rose above its usual level. Phillippi⁴ reports ninety cases in which he was able to abolish the fever in 72 per cent. In the

4. Phillippi: Beitr. zur Klinik der Tuberkulose., Würzburg, xvi, No. 3, p. 183.

cases we treated with the deffervescence of fever, the chills and night sweats became less severe or disappeared. Of the four patients who did not improve for any length of time, two were not visibly benefited and two perceptibly grew worse. None of the less advanced cases were harmed in any way by tuberculin. The experience with these cases warrants my continuing along the same lines of therapeutic endeavor. It would be preposterous for me to recommend tuberculin as a therapeutic agent merely from the results I have obtained in a handful of cases. But from my experiences and the light of the knowledge gleaned from the recent conclusions of numerous investigators who have been so fortunate as to have observed many hundreds of cases, I believe but little doubt can remain concerning the efficacy of tuberculin, properly administered, in the treatment of early tuberculosis, both in the city and the sanatorium. In addition, much good may be accomplished and little harm done, if tuberculin be experimented with as a palliative measure in advanced stages of the disease.

Tuberculin Reactions.—Two distinct phenomena were observed in some of the cases which have just been discussed. These were focal and local reactions occurring after the injection of tuberculin. In all of the pronounced and moderately early cases that which appeared to be a focal reaction was obtained. The same also occurred in an incipient case now under tuberculin treatment but a short time. On examining the patients four or five days after the first injection it seemed from the physical signs obtained by auscultation that the pathologic process in the affected part had increased in its activity—the abnormal changes in the breath sounds were more noticeable and more râles were heard. This reaction lasted from one to four weeks, varying in duration in a direct ratio with its intensity. Usually a temporary rise of temperature occurred at the same time, but the same was also observed in the absence of temperature elevation. The focal reaction has recently been described by Otten⁵ and others.

In many tuberculous patients that I have injected with tuberculin a pronounced local tissue reaction has occurred. This was observed in all stages of the disease and with a dosage ranging from the minimum to the maximum. The percentage of cases in which it was noticed was not large, but it occurred with reasonable regularity. In from twenty-four to seventy-two hours a local inflammatory edema became manifest, characterized by a well-defined area of redness and painful induration involving the deeper subcutaneous tissue, which varied in size from that of a five cent piece to a silver dollar. On several occasions softening followed the primary indurative change and it appeared as if suppura-

tion would surely occur, but abscess formation was never observed. After a few days of violent activity the inflammation slowly subsided and disappeared in from one to two weeks, leaving a hard nodule which might be noticeable for a month or more. This reaction has been obtained two or three times in the same individual during the first month or two of tuberculin treatment, but seldom after that time. I have never seen a similar reaction in a non-tuberculous person. Therefore, though this phenomenon does not constantly occur in tuberculosis, and contrary to Otten's⁶ opinion, when it is found should be regarded as additional valuable evidence in constructing a diagnosis. I look on it as differing but little from the skin reactions of von Pirquet and Moro, excepting that it is more intense, as it involves deeper tissues. Probably more valuable than either the vaccination or the subcutaneous injection is the intra-cutaneous injection as described by Mantoux and Roux⁷ in France, Römer and Mendel⁸ in Germany, and Evans and Whitney⁹ in this country.

In conclusion it may be noted from the recent extensive researches of many experimenters and from the suggestions imparted by the study of the few cases described in this paper that tuberculin though not a specific, is in many cases very efficacious and often a near-specific; that in city practice, usually limiting itself to the poor, for the wealthier seek more favorable surroundings, tuberculin certainly is strongly indicated; that in sanatoria, where often complete cures are not effected, the treatment should be supplemented by tuberculin; that when tuberculin is used with the hope of producing a cure, cases should be very carefully selected; that in incipient early and moderately pronounced cases, it has some curative value; that in advanced and hopeless cases, when unpleasant and trying symptoms do not respond to the usual measures, tuberculin should be tried, for sometimes it is a valuable agent in the alleviation of such symptoms; that when carefully employed, tuberculin is not a dangerous instrument. In no early cases have I ever noticed any detrimental effects from its use. In the vast majority of advanced cases no ill effects are noticed from the use of tuberculin, and it is often impossible to determine whether it is a causative factor in the production of rapid retrogression. Indifference and antagonism to tuberculin therapy is in many instances the result of lack of careful and studied experience with this important remedy.

In early cases a focal reaction may be noted in the first weeks and months of treatment, as was

6. Ibid.

7. Mantoux and Roux: München. med. Wchnschr., 1908, iv, 2117.

8. Römer and Mendel: Beitr. z. Klinik d. Tub., 1909, xlii, 139.

9. Evans and Whitney: Archiv. Int. Med., 1910, vi, No. 3, p. 307.

5. Otten, M.: Med. Klinik, Berlin, July 10, vi, No. 28.

verified by the five cases which I have described. In all varieties of cases a local reaction, akin to the skin reactions, is often observed after one or more of the early injections of tuberculin. This reaction does not occur in the non-tuberculous. When found it is pathognomonic and is usually more pronounced than the von Pirquet or Moro tests.

TEACHING MEDICINE ARIGHT

RICHARD HENRY JESSE
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How many medical schools are there to-day in the United States? There were seventeen or more in Missouri alone seventeen years ago—an enormous number for one state to harbor! Happily the number of them is less now (1911), but they are far too numerous still: may the dying out continue, for most of them are against public welfare. All of them, here and elsewhere, are sending forth annually an army of doctors and surgeons to practice on the people, but how are they prepared to do it? Is the instruction generally such as to make skilful practitioners? Let the reader weigh carefully what I shall say and draw his own conclusion.

If any one calls in question my ability to judge in this matter, let me not dispute with him, but say merely that for nearly thirty-three years I have studied medicine eagerly on its pedagogic side, examining every good school that has fallen in my way in America and in Europe. And are lay readers of fair intelligence able to weigh my argument? Perfectly so, I would say, if only they will read my words attentively. People do not have to understand anatomy or physiology to see that to learn medicine aright one must have had considerable previous training; nor do we have to know the length of our alimentary canals to see that professors who spend most of their time in private practice, devoting only spare time to teaching, cannot give the best instruction. My article is addressed to readers of strong common sense, whether they are physicians or not. My views come from the experiences and the sober thought of thirty-three years—thirty of them (from 25 to 55 years of age) spent as dean or professor or president in three universities, each with a medical department. It has been an ambition of my life to build up one model medical school; failure of health from overwork has cut short this dream in part; let me now struggle for it with pen at least. It comforts me to recall that, while as president of the University of Missouri I strove constructively for better things in medicine, I had the confidence of such men as William Osler and William H. Welch and others like unto them.

If any professional school aims at excellence, it should admit no students that have not had at

least four years of good high school training and two years more in a college. In preparation for medicine these two years should be devoted to general chemistry, physics, zoology, botany, French, German, and English. How many medical colleges in America require this—not on paper, but in fact? How many of them require, indeed, even the four years high school course?

Moreover, no school can now give good instruction in medicine unless it has a library, a museum, and a number of laboratories, well equipped, each occupying several rooms. How many laboratories are indispensable? The most modest estimate would surely include (1) anatomy, (2) physiology, (3) physiological chemistry, (4) bacteriology and pathology, (5) pharmacology and materia medica. Each of these titles includes several allied subjects. The equipment of these laboratories is expensive and each must be in charge of a professor who gives all his time to teaching and research. Moreover, he must have one or more assistants, according to the number of students. These men, furthermore, must be supported on adequate salaries. Large income from endowments or other sources are absolutely necessary; fees alone will not pay the bills. And then, too, the equipment is ever changing. How many of our modern medical schools have such laboratories or sufficient income from without on which to support them? Work in these laboratories should occupy the whole time of every student in the first eighteen months of his course. This is a longer time than many schools require for the whole course in medicine, for many have sessions of only five or six months, and demand less than four of these.

The last two years (eighteen months) of the four years' course (thirty-six months) are given in good institutions to preventive and curative medicine—clinics, so-called. For this instruction there must be a sufficient hospital, a dispensary, a number of laboratories, clinical teachers and, in my opinion, much revision of modern methods in America.

What I have said hitherto will be disputed by no intelligent man or woman; but here—on the usual way of teaching clinics—comes one bone of my contention. Almost everywhere it is assumed that if the hospital and dispensary have patients enough, the teachers be numerous enough and famous enough as practitioners, and the time eighteen months, the instruction will be excellent, provided, of course, that it is based on eighteen months spent previously in the laboratories aforesaid. But here—on this assumption—let me enter my protest and plead for radical revision of the methods prevailing everywhere, or nearly everywhere, in America.

And first as to the teachers of clinics: should they practice for pay on private patients at their homes or in hospitals? Nay, verily. No man can meet the demands of a large private practice

and at the same time give the best instruction in any professional school. "No man can serve two masters," saith the scripture. It is hard to teach any great subject well even when one gives to it all his time and all his soul; and medicine is the hardest of subjects to teach. University professors of Latin, English, philosophy, chemistry, and so on, do not give private lessons, nor do our best teachers of engineering hire out for pay. They are not negotiable for private employment. In fact, engineers eminent in field or in shops would generally make poor teachers; we do not entrust them with this work. An Edison, even, would probably be a failure as professor of electrical engineering, and Goethals of Panama Canal fame, or De Lesseps, or Captain Eads could scarcely have taught successfully canal or bridge building. So also in law, agriculture, and so on. Success in practicing a profession comes rather late in life for a man to pick up skill in teaching, and attainment in the technique of an art does not of itself bring ability to instruct others therein. Here is one fundamental error in our notions about medical instruction. Some famous doctor near middle age is made professor in some city medical college. Burdened with the care of private patients, he starts off in the morning in automobile, dashing hither and thither. At 11, let us say, he is whirled up to the college to demonstrate or to lecture. Hastening to ward or classroom, he begins his discourse: on tap of the bell he closes, mounts his automobile, and dashes off to see another patient. Assistants may help, but this is not the best way to teach, nor can it ever be. To argue for it is to pour contempt on pedagogic skill. Such methods are not tolerated in other professional schools: they are found in medicine alone. It is high time that here also they were abolished.

Every medical school should have its principal chairs for clinics filled by men that devote their entire time to teaching and to research—men that are not for hire by individuals. Indeed, they should not accept fees, but should receive adequate salaries—say from \$3,000 to \$7,500 a year, according to the value of the man and the costliness of living in the locality. They should practice in the college hospital of course, but the fees, if there be any, should go to the institution. The hospital, furthermore, should be absolutely under the control of the college. How many chairs, filled in this way, are necessary? I would say at least these five: (1) surgery, (2) theory and practice of medicine, (3) gynecology, (4) therapeutics, (5) eye, ear, nose and throat surgery. Each of these titles includes several allied subjects. Can good professors be had for these places under such conditions? Most assuredly they can, provided that ample opportunity be given for research. Admirable men are gotten under similar conditions for engineering, law, agriculture, applied chemistry, and so on. Famous

practitioners are brought in regularly, but only for inspirational lectures, or outlook on actual work, or to fill minor chairs.

Revision is needed also in the management of our college hospitals. They should accept only, or chiefly, at least, patients useful for clinics or for research—patients carefully selected. Only in this way can the best material be got for illustration in teaching and for discovery through research. I am pleading for a sifting of our clinics. And there is dire need also for better grading of hospital instruction, according to the advancement of the students. Interesting cases, suddenly arising in the take-all hospitals, often divert attention from such systematic courses as may have been laid out. This should not be. Another false notion, widely spread, is that the larger the number of cases the better the clinics, even for undergraduates. This is not true. Vast clinics and various are not necessary for the undergraduate, or even good for him; but rather clinics graded and selected. For postgraduates it is different, but of them we are not now speaking. His summer vacations the undergraduate might spend in larger hospitals, as young engineers spend theirs in field or mine or factory. Moreover, in every state university, at least, the hospital ought to be practically free. In this way it can be made far better, both for teaching and for research. What state would grumble at one such blessing for its people? These state institutions should aim chiefly at preventive medicine.

Another fundamental error found everywhere is that good clinics are obtainable only in large cities. This notion is far wide of the truth. A hospital of 150 beds can, by carefully selecting its patients, give the best instruction for undergraduates in reasonable number; while 400 beds would suffice for 500 students. The University of Virginia, in a small town and with a comparatively small hospital, has a surgical clinic justly famous; and Jena in Germany is revered everywhere.

Let us consider this farther. Every state university in a small town—and all of them, with a few exceptions, are in small towns—with a hospital of 150 beds, by accepting without charge cases curable, or incurable, but interesting for illustration or research or both, can have all its beds regularly occupied. It has only to support one good traveling lecturer on hygiene—personal, household and municipal—and to employ one collector of cases in every large city of the state. The collectors (who would not give all their time to this work) might be had for \$500 apiece annually, and the lecturer for \$3,000 or \$3,500 with (say) \$1,500 more for traveling expenses—about \$5,000 a year. What would be the results? The lectures, all free, would illuminate the people and thus promote public health; the physicians of every locality visited

might be brought into hearty cooperation with the state university and thus serve as collectors of good patients. They really reach the people, for in most of our commonwealths by far the greater part of the population lives in towns and villages. The public enlightenment alone would more than justify all the cost. Who would defray this expense? The university, of course, as a part of its extension work. What does a state university live for but to enlighten the people? This it should do not only by training further high school graduates but also by giving light to people at their homes. What enormous amounts of money many universities are now spending yearly for extension work in education, in sociology, in agriculture, with help from the national government and blessings from the people! Why not spend a little for promoting public health in the state and incidentally in getting good clinics for the university hospital, in providing better physicians, in helping the sick of to-day, in forefending disease from the future, in advancing research? Think what it costs annually an efficient college of agriculture to provide illustrative material—costly cattle, sheep, goats, horses, swine: model dairies; veterinary hospitals; greenhouses, gardens and plant plats; reservations for forestry; grounds for seed tests; insect work. Think again how much it costs for taking light to farmers at their homes! We sometimes find trains of cars, full of illustrations, traveling from institute to institute. Not a word of grumbling is heard about the cost. Now all this is just as it should be, but why not spend a little also on breeding up people as well as other domestic animals? Why should our state and national governments be so warm toward animal husbandry and so cold toward human husbandry? So zealous for the best forms of plant life and so reckless of men?

Our state universities—nearly all in small towns—have a rich opportunity, through their medical departments, to raise to right notions on this subject the people about them, if only they will go boldly forward toward traveling lecturers, free campus hospitals, selected clinics, investigations into the causes of diseases and right ways of preventing and of ejecting them. Good results, following quickly, would win hearty approval from the people, and our country would get at least one good undergraduate medical school in each state—ultimately about fifty. Their chief aim should be preventive medicine. Suppose the campus hospital should cost annually for maintenance \$50,000, or \$100,000, according to the number of students? What is that to a great commonwealth? More is spent every year by every good college of agriculture for the purchase, maintenance, and management of illustrative animal-prophylactic and farmer-illuminating materials.

But would it not cost the state less to maintain the first two years in its university amid the laboratories and the last two in its largest city? To separate the branches of a university is always to increase the expense of maintaining them. For example, in the State University of Missouri all departments are at Columbia except the School of Mines, which is at Rolla. To support this detached member has been costing of late (see Biennial Report) over \$100,000 a year, whereas the cost, were it on one campus with its sister departments, would not exceed \$20,000. Now this school is administered with wisdom, care, and economy; its expensiveness comes mainly from separation and consequent duplications. And Kansas has a fine college of agriculture at Manhattan and a university at Lawrence, but this separation costs Kansas hundreds of thousands of dollars every year, with loss of power to both institutions: ultimately it will have to establish agriculture at Lawrence and a second university at Manhattan. Mark my words! And something similar will finally come out of all these distant medical unions, or else they will cease to exist, giving place to wiser ways. But putting aside this lowest objection (costliness), everyone will admit the loss all round in higher things through missing the larger campus life amid multitudes of other students pursuing multitudes of different aims.

Again, could not a union be formed with some full-fledged medical college already existing in some metropolis? No doubt it could, but would it be wise? Such unions are like morganatic marriages: I have yet to find the first one that has proved beneficial to the public. It amounts to the university's putting the stamp of state approval on a far away institution, over which, on account of the distance, it can have only general oversight. To the far away medical end it surely is profitable, but not so to the university, the state, or to sound education. And city medical colleges with their circulating professors, feeling pulses at so many dollars a feeling, will sometimes even *pay* for such unions with great universities: but these offers will never beguile the way. Gold bricks they almost always are—gold in outward look, but bricks all the same. Does not Isaiah (chapter iv) tell of seven women besetting one man with offers to furnish their own keeping if only they might be called by his name? "Nay, ladies, nay," the virile university will reply.

And why should not the federal government also help to maintain in each state university (unless another institution be specially designated) a model medical school for undergraduates? It does even more for agriculture, appropriating to each commonwealth, presumably, and certainly to Illinois and some others, \$80,000 a year (Morrill, Hatch, and Adams acts). In 1910 those appropriations, all told, amounted to \$3,628,580, with quite \$500,000 more for cooperative

work. And long ago (1862) congress adopted the policy of endowing colleges of agriculture amply, as it had previously done (1818) for the state universities. These institutions, therefore, may all reverence their states as mothers and the national government as a common grandmother. And think what our general government has done for the education of negroes and Indians! In 1910 the appropriations for thirty Indian schools amounted to \$4,566,021; and for training the negroes (Freedmen's Bureau) congress has given sums that, added together, make the wealth of Croesus look like a trifle. Why should not similar aid, for a term of years, at least, be given for the betterment of our state university schools of preventive medicine? Why not raise human hygiene in national recognition to a level with animal husbandry and plant propagation? Why not make these grandchildren of the United States strongholds of research into diseases, of prophylaxis, and of medical instruction? Why not help establish a model undergraduate medical school on the campus of every state university, sending the more ambitious alumni for special studies to the best graduate institutions? And this proposed aid should not be thrust on any state, but it should be *offered* on condition that the commonwealth devote yearly to the same end three or four times the amount of the federal aid. Harking back again to experiment station precedent, I would suggest, in the outset, \$15,000 a year to each state.

An admirable statement of the essentials of medical education may be found in a report by A. Flexner (Bulletin No. 4, 1910) to the Carnegie Foundation. The president of this Foundation, Henry S. Pritchett, who, by the way, is a native of Missouri, has written a valuable introduction. A copy of the report should be in the hands of every person interested in knowing what in 1910 was the status of medical education in the United States and Canada, and how it may best be reformed. You can get a copy by addressing "President Henry S. Pritchett, 576 Fifth Avenue, New York." Flexner tells the exact condition in 1910 of nearly every medical school in our land, taking thirty-eight states in order and giving the date of each visit. In Missouri, for example (pp. 251-9), he examined on their own grounds thirteen schools as to entrance requirements, laboratories for the first two years, libraries, museums, clinical facilities, length of course, and general methods. One of these colleges he praises warmly for its entrance requirements, its laboratories, and for abandoning at present the last two (clinical) years and the giving of the M.D. degree; another he approves heartily up to the last two years, but there he winces; a third he recommends almost throughout; the remaining ten he heartily condemns throughout. One can read plainly between the

lines an obvious contempt for the "State Board Stipulations." Now Missouri is a large state and this is a gloomy picture. Is it just? I believe it to be entirely so, and I am speaking out of an experience of many years—seventeen of them (1891-1908) as president of our State University. Temptation has sorely beset me to make citations from this priceless report, but that would make my paper too long. It has been necessary, therefore, turning away from tempting light, to stick closely to my own experience and the convictions born thereof.

What is at this time the best school of medicine, all things considered, in these United States? As a personal opinion, not to be urged dogmatically, I would say the Johns Hopkins. After treading in a college the round of libraries, laboratories, museums, hospitals and dispensaries, one turns at last to look for the spirit that maketh alive. In some places equipment and requirements are excellent, but the goal held mainly before the student's eyes is success in private practice, i. e. fame and money. The spirit of the practitioner professor prevails. Research and the helping of humanity at bedside and by discovery—those noble ends—one finds only in the background. It is the opposite of this, as well as more ostensible things that makes the Hopkins loom up large before the writer's eyes.

Finally, let the reader not infer that, because medical colleges are generally poor in our country, and especially in Missouri, so also are all the men they send forth as practitioners. All of them that have been poorly trained carry heavy handicaps; all of them, but for this defect, would be far better; but some of them, in spite of obstacles, do achieve good results. Many a doctor, in spite of poor training, has, by brains and care and journal reading and righteous ways, reached well deserved success. These men you will find foremost in zeal for educational reforms: they would give to others better things than they themselves had. No amount of illteaching can smother the power of some men to reach eminence. I know a surgeon, now retired of his own accord, who had the best instruction of his day, but desperately poor instruction according to modern notions, whose judgment, nevertheless, I would always seek before letting any other man cut into me. Ripeness of judgment, honesty of purpose, sound sense, natural instinct for finding the best, personal righteousness—all these virtues and more, besides, make him for me an oracle of wisdom. But he burns with enthusiasm when you talk to him of reforms in medical education. And there are, heaven be thanked, many others like unto him. Were it not so, we should all be dead men. But because some men have run well, in spite of handicaps, it does not follow that radical changes are not needed in nearly all our American medical colleges.

Finally, let me say that I alone am responsible for what has been said in this paper, and I am not now connected, except nominally, with any institution of learning. Indeed, no one outside my own household has even known of my writing on this subject. Good or bad, right or wrong, the paper has been written out of large experiences with no design to hurt anybody or anything, but with an honest, earnest desire to help on a noble cause.

SOME COMMON ABUSES OF SURGERY

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When Sir Joseph Lister announced to the world his discovery of the causative or etiologic element in wound infection and suppurative processes, he ascended to the highest plane of benefactors of the human family. He revolutionized the practice of surgery and, working along his lines of investigation, the practice of medicine has been extensively revolutionized. I love to talk about this grand old man. He is the earthly saviour of humanity. Great Britain alone cannot claim him. The whole world claims him. Some years ago, while a student in England, I chanced to pick up a medical directory of the United Kingdom and noticed almost a column of honorary titles which had been conferred on him by scientific organizations; and even royalty itself had conferred high honors on him. Many years ago that good and great Queen Victoria advanced him to the title of a peer and seated him in the House of Lords. On the occasion referred to above I had the good fortune to meet him personally, take him by the hand and spend two or three hours with him in his clinic in King's College Hospital, London. I have ever since considered this an opportunity of a lifetime. At that time he was intensely interested in experimentation with double cyanid of zinc and mercuric, which he hoped would show the antiseptic properties of carbolic acid and corrosive sublimate without their irritating action. I saw him making his own dressings, just like a surgeon's dresser or a medical student. He was unassuming, plain, and as courteous as a country parson. This reminds me that the higher up one may climb among great people the less dignity one finds and the less likely one is to be neglected and snubbed. The arrogant snob will neglect you and humiliate you. His head is comparatively empty and his heart is atrophied. He seeks to impress you with his importance by assuming a lot of pseudo dignity. He is usually as servile as a puppy in the presence of his boss.

A few years later, I had the good fortune to meet Lord Lister a second time, this time in old

Edinburgh, Scotland, where he had earlier worked out his epoch-making demonstrations in bacteriology. He was the guest of that ancient city and, with the commander-in-chief of the British army, Lord Wolseley, sat, one on either side, with the lord mayor as honored guests of the city. The lord mayor appeared in official robes, bedecked in gilded vestments. The great general, Lord Wolseley, was attired in accordance with his rank as commander-in-chief of the greatest army in the world. The glorious old doctor appeared in his old double-breasted frock coat. His long white hair almost touched his collar. Each of these distinguished gentlemen addressed a packed hall of 3,000 people—its capacity not including standing room. Twelve thousand applications had been made for tickets of admission. The great general read his address from manuscript but the great doctor spoke without notes. In eloquence and pathos he fairly eclipsed both the other dignitaries. There is not a doctor living whose heart would not have beat faster to have seen and heard the grand old man. I wished every doctor in the world could have sat before his glorious leader on that occasion. My heart did not seem large enough to hold the gratification, although it appeared to work a double quick movement.

I did not intend this much of a preamble but the air-brake did not work well.

Like all great boons to mankind, the revelations of antiseptics and asepsis and bacteriology in surgery and medicine were not an unmixed blessing. Like most of the sweetest pleasures in life they are abused.

I have in mind unnecessary surgical operations. Since it has been learned that a belly can be opened with impunity, there has been a grand rush of ignorant and dishonest licentiates in medicine and surgery to show off. They like to hear the gaping laymen say: "Why, that doctor cut a man open and took his guts into his hands, cut out something, then sewed him up and he lived." The doctor probably did not know what to look for nor what to do when he got into the belly. He wanted to start the startling talk and, incidentally, pocket a fee. He knew it was almost a certainty that he could do the stunt without being called on for a death certificate. Prior to the labors of Lister this immunity did not exist. This is a wicked thorn among the roses. This is a shameless graft that injures the people and injures the profession. Time convicts the pretender, but causes suspicion to hover around the conscientious, scientific worker in surgery. Many years ago I had a little tilt with a local politician who afterward became sheriff of my county and mayor of my town. He said: "You fellows seem to think you are better than ordinary business people. You say it is disreputable to advertise your business as other people do." My reply was no and yes. I said: "We are the same kind of humanity as

* Read at the Thirty-Third Semi-Annual Meeting, Southeast Missouri Medical Society, Morehouse, May, 1910.

our neighbors: but our neighbors deal in the people's dollars while we deal with people's lives. Their lives are more sacred and more valuable than their dollars; therefore we must offer something more trustworthy than unsubstantiated words for what we are able to do in our life-saving business."

Another abuse of surgery is the stupidity or negligence, so common in would-be surgeons, in looking a patient over carelessly for complicating disorders. To operate on a patient for one disease when he has others that are sure to prevent a cure, is unfair to the patient and derogatory to the science of surgery. Recently, I knew of a daring surgical operation being done on a confiding patient which set the neighborhood in a buzz; but in a few weeks it developed that the patient was hopelessly incurable from another disease which destroyed life almost before the operation wound had healed. A careful examination, by a man of average learning and ability to think, would have prevented this calamity. It is freely granted that we all make mistakes. I readily plead guilty to my own; but a man is inexcusable for rushing into surgery that endangers his patient's life, without a careful, painstaking examination of the case after first of all familiarizing himself with the points of differential diagnosis. Furthermore, it often happens that more than one disorder can be removed at one operation. This fact enables us to effect a cure without multiple surgical operations, multiple anesthetics, prolongation of illness, exhaustion of the vitality and financial resources of the patient. In any of the large clinics one can observe two, three and four surgical feats executed under one anesthesia. This should be done when it can be done safely.

One of the most glaring abuses of surgery is the too common practice of hopeless surgery. To make myself clear and emphasize this point I beg to quote from that great work entitled "The Operations of Surgery," by Jacobson and Steward. Thus: "In these palliative operations, and in all doubtful operations for cancer, it is not only the individual patient that has to be considered: the thoughtful surgeon will remember the effect of his operation on many other potential patients. Thus, a palliative operation or an extensive operation under conditions doubtful of success is performed, both sides of the question having been honestly put before the patient. The operation is not permanently successful, as was fully explained might be the case. The want of permanent success is known to a circle of varying extent. We do not sufficiently consider what effect this want of success has on other patients also sufferers from cancer of the bosom—but quite ignorant of the conditions in which the operation referred to was performed—in leading them to conceal their cancer at the time emi-

nently suited to operation, until the most favorable opportunity has passed away."

Several years ago I discussed before the Illinois State Medical Society this very principle in its relation to the operative treatment of appendicitis in those cases which have been allowed to go almost to a hopeless state of diffuse septic peritonitis. The appalling death-rate which the public will attribute to the surgery, rather than to the disease, frightens many more people to a fatal procrastination of surgical relief than the *dernier ressort* operations can ever save. The conscientious surgeon who desires to do the greatest good to the greatest number of his fellows cannot shut his eyes to these considerations.

One more common abuse of surgery and I shall quit my subject. I desire to refer to the long confinement of patients in hospital. The great Mayos have repeatedly called attention to the low blood-pressure and prolonged invalidism resulting from long confinement indoors and in bed. Not only is the patient's physiology enfeebled but his earning capacity is annulled and his financial resources exhausted by this enforced restraint. In St. Mary's Infirmary, in Cairo, we are often pressed for room. When we have patients waiting for admission we begin to inquire about rooms that will first be vacated. When a room is named as probably available at an early date, we have learned to ask whose patient is in it. This question has grown out of the fact that some doctors keep their patients in hospital four or five weeks for diseases and operations which will be discharged by others in two or three weeks. When we are informed that a patient is under treatment of Dr. Blank and was admitted two weeks ago, we say that settles it. He is probably not half through with the case. I am not impugning the motives of any man. I am criticizing the judgment of a class of men. The latter I have a perfect right to do.

If the presentation of these views and the discussion that may follow shall redound to the betterment of a profession that I love and to the people whom we all serve, the purpose of this paper will have been accomplished.

TRANSPPOSITION OF APPENDIX *

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In selecting the subject that I have announced, I did so from several points of view. First, my desire to review the surgical anatomy; second, to give you the several positions that the appendix may be found to occupy; third, to report an unusual condition of the appendix encountered; and lastly, to discuss the best procedure in removal of the appendix.

* Read at the Semi-Annual Meeting of the North Missouri Medical Society, Kirksville, October, 1910.

The vermiform appendix, or *processus vermiformis*, as it is sometimes designated, is a small tube located in the right iliac fossa, midway between the anterior superior spinous process of ilium and umbilicus, and varying considerably in length in different individuals, but on an average its length is about four inches. It is pale in appearance, and very soft to the touch without much resistance to pressure. In disease this tube becomes hard and reddened, and the infected blood-vessels are very prominent to the eye. It becomes larger in diameter, becoming the size of a finger, or even larger, and lengthens to six or seven inches. Its cavity is about the size of an ordinary quill, and the appendix possesses four coats or coverings which are from within outward, first, the mucous coat, which is most internal; next comes the submucous coat, then the circular muscular, the longitudinal muscular, and last, the serous or peritoneal covering. It has been found by statistics that the lumen of the appendix is partially occluded in at least one-fourth of all adults. The occlusion occurring toward the distal end is not regarded by our latest authors as pathologic, but when the constriction occurs elsewhere along the tube it is considered a result of previous disease. The opening of the appendix into the cecum is about one inch below and a little behind the ileocecal opening, and the fold of mucous membrane guarding it is called the valve of Gerloch, but it is not regarded as a distinct valve by late anatomists. Beneath the appendix and coming off from the lower surface, is a membrane pale in color and injected with numerous blood-vessels; this membrane is called the meso-appendix, this mesentery being much shorter than the appendix, which accounts for the curling and twisting of this tube. This mesentery may be extended to the tip of the process, or only part way, and I have seen the appendix without any mesentery at all, and I will dwell more fully on this subject in the following pages.

Having considered in a general way the surgical anatomy of the *processus vermiformis*, we will take up and consider the positions the appendix may be found to occupy. It has been described by different authors, and no two exactly agree as to its position, probably due to the fact that the appendix is so curled and twisted on itself with the cecum as the axis as to render its mobility great in any direction; but as a general summary we may find the appendix in one of several directions: first, it may lie over the brim into the pelvis; second, upward behind the cecum and third, upward and inward toward the spleen. Each of these positions has been described by different authors as the normal position of the vermiform appendix. But if the appendix is long and straight, it may reach beyond the median line, or it may lie in contact with the rectum, ovary, tube or bladder; again it may lie

close to Poupart's ligament, or curve upward behind the colon reaching in front of the kidneys and the liver. So you see we may have the appendix in one of several positions and consequently we may have the appendix involved, while situated in one of these unusual places, and lead us to err in diagnosis.

I recall one case of intestinal obstruction in which the appendix was the mechanical cause. This case was that of a young man aged 19 years, who was taken ill with all the symptoms of intestinal obstruction. He ran a temperature in later stages of 100 to 101 F., had marked tympanites, abdomen greatly swollen, pulse fast and receding, respiration fast and interrupted, had an anxious and restless countenance, perspiration free. There was a history of suppressed bowel action for the previous five days. The abdomen was not so very sensitive to touch, but sensitiveness and the above symptoms increased with the course of the disease. I was called in with Dr. E. S. Quinn of this city, and confirmed his diagnosis in every particular, and we immediately advised operation. The father of the boy was absent from home, and the mother refused to do anything until he arrived. Father arrived two days after we had recommended operation, and he also refused operation until he was positive the boy would die without operation; however, he finally acquiesced and became anxious for surgical interference. We finally consented to give the boy one chance in a thousand in this late stage, and with the valuable assistance of Drs. E. S. Quinn, E. C. Callison, J. W. Martin and A. W. Parrish I opened the abdomen in median line and encountered a general peritonitis with dense and firm adhesions. In fact, the adhesions were so firm that I could get to intestines only after I had opened the great omentum in middle line and stripped it up from intestines and found our obstruction to be in the right iliac fossa. The obstruction proved to be the appendix which had wrapped itself around the coils of the ileum and had become so constricted that the appendix was not recognized and could not be as it resembled a flat white band, about one inch in breadth. It was impossible to loosen this band to any great extent, and finally we succeeded in freeing the obstruction by pulling the intestines back through the ring formed by the appendix. When we did this the appendix uncoiled and we found it to be about eight inches in length, without any mesentery at all or any signs of its ever having one, and found it to have a large head resembling somewhat a billiard ball with a few indentations; the head probably caused the constriction to be so firm as it wrapped itself around so firmly in the shape of a ring. This appendix was perforated in two places and was rather dark in color, next to the cecum; the appendix was removed and microscopic examination proved it to be gangrenous appendicitis.

I cite this case in which it was impossible to diagnose correctly. We knew we had a case of intestinal obstruction, but no symptoms of appendicitis had ever been manifested. We had a malformed appendix from one end to the other and I failed on searching the literature to find any such condition mentioned as we encountered in this boy.

As regards the operative procedure, of course that varies with the respective operators. But I believe the easiest and simplest method that will give the best result should be the method adopted. And I believe by ligating the appendix close to its attachment and thoroughly cauterizing we have a much safer method than the purse-string suture, because it is of shorter duration, thereby lessening the danger of anesthesia and infection, doing away with so much danger of so many sutures that might loosen; and by cauterization of the stump we practically destroy all opportunities to an infection. The only advantage I see for the purse-string suture is, it is a more scientific procedure, and looks nicer when completed; but it is a great deal more dangerous to the life of the patient and when we operate we should not operate to display skill and dexterity, but to save the life of our patient by the best means adaptable.

**"WHAT IS THE KEY TO THE PERMANENCY OF A
VOLUNTARY ASSOCIATION OF INDIVIDUALS
IN A COMMON CAUSE?"**

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Every cause has its "voluntary association of individuals," to whom it is a common cause based on certain principles which represent their common interests, sympathies, objects and desires. They are cooperating their efforts to attain certain results.

The principles on which a cause is founded are enunciated and declared in proper form, setting forth before the world the creed, confession of faith, the platform or the doctrine of that cause. The Masonic cause is an illustration of permanency, having come down to us not only from the building of King Solomon's temple, but many thousands of years prior thereto.

This great cause has for its declarations of principles on which it must stand or fall the tripod: a belief in the existence of a God, the immortality of the soul and the brotherhood of man. This cause has stood on these principles as far back as the most ancient history sheds any light and we have no reason to believe that it will ever disintegrate.

The supposition is that all applicants for membership in a cause, whether it be church, state, scientific, social or what not, are familiar with the basic principles of the cause; that they are

desirous of adding their efforts to that of an organized body for the promotion of the principles of the cause; that their interests, sympathies and desires are in common with those of this voluntary association. But this supposition is not always true, as deplorable as that fact may be. We find applicants many times seeking admission to the different organized bodies who are unworthy and are not desiring by their membership to assist the cause, but expect that the cause may assist them in some selfish social, business or political enterprise, making it necessary to guard the door to prevent the entrance of imposters and to examine well the applicant and learn fully his object in asking admittance.

Necessary to receiving the degrees in a Masonic lodge the application must be recommended by members of the lodge, held a definite time till the fitness of the applicant can be ascertained and finally if he is found worthy and well qualified, duly and truly prepared and gives the "right knock" he is admitted, but advanced *only* as he shows proficiency in the preceding degrees. The organized bodies of Masonry have fixed standards of qualifications, up to which the applicant must measure before he can be admitted to the secrets and benefits of the order. To accept an applicant whose motives are of a selfish nature, and bestow on him the solemn and sacred truths of Masonry would not only be "casting pearls before swine" who would turn and rend you, but would destroy himself also; it would be to place him in a position out of harmony with his nature, his daily life, his sympathies and interests; it would mean to him to take on himself the most sacred obligations and vows to do those things which he has never done, cannot do and does not contemplate trying to do; it would mean to place within his hand an instrument with which he could only destroy himself.

To the voluntary association of individuals in the cause of Masonry, it would mean to clothe a coward, an eavesdropper, an imposter, with the garb of a Mason, to give him the sacred and secret truths of Masonry, while his whole life and sympathies are out of accord with the cause; it would mean to the lodge to incorporate a destructive element, one of dissolution and disintegration which, when reinforced by those with sympathies in common with his own would increase the destructive element and further approach dissolution. If he is not already a Mason at heart and by practice, to confer the degrees on him is not going to make him a Mason.

The Jasper County Medical Society is a "voluntary association of individuals" laboring in a common cause, based on certain principles, which should be understood by every applicant for membership, and to be qualified for membership he ought to be wholly in sympathy with the objects of the cause represented by this society; if not,

he will be a destructive element if he is admitted to membership. Our declaration of principles on which we founded or organized this society is: so far as it lies in our power to promote scientific investigation, proper medical legislation, medical organization, good fellowship in the ranks of the profession, sanitation and health in the community, and when an applicant comes prompted by these desires, knocking for admittance, he should have and *will* have the warm grasp of the hand of every member, with his best wishes. The board of censors is the gateway to our society, and it is to them that we must look for protection for the society and its members. Their duties in this relation to the cause of this society is a sacred one, and should not be lightly considered. They are obligated to the society to examine well all applicants for membership in relation to their morals, professional standing, and their object in desiring to become members of the society, and unless they are qualified morally and professionally and are familiar with the declarations of principles fundamental to the society and are fully in sympathy with them, they should be rejected. They should be as willing to give of their time, talents and substance as they are to receive such of others. Truly the best and most efficient member is the one who is most willing to give humble service to the cause. He is not looking for prominence, promotion or prestige, but is humbly and earnestly laboring to promote the cause of the society. We should not allow a desire for members, nor additional finances, nor friendship, nor any other unworthy thing to make us lax in admitting applicants. We should not make the society a reformatory by taking in unworthy applicants with the hope of raising them up to the standard of qualifications after we have them in, for instead they will prove to be elements of discord and may drag down and degrade the society, and at times when the members should be engaged in useful and edifying discussion, they may be found engaged in strife, bickering and quarreling with each other to the hurt and disgrace of the society.

The permanency of a voluntary association of individuals in a common cause depends on the righteousness of the cause and on the elements of character of the individuals thus associated.

They must have honest motives that they may act sincerely.

Conscientious, that they may recognize their duties and obligations.

Persevering, that they may become not discouraged.

Industrious, that they meet their obligations cheerfully.

Patient, that their labors may not become irksome.

In love with the cause, which will serve to lighten their labors.

These elements of character may all be embodied in one word, I believe, and that word is **LOYALTY**. So in answer to the question, "What is the **KEY** to the permanency of a voluntary association of individuals in a common cause?" I would answer, **LOYALTY** or loyalty to the cause.

THE NEW TREATMENT OF SYPHILIS WITH "606" (DIOXYDIAMIDOARSENOBENZOL)

A Preliminary Report of Personal Experience in
Forty Cases

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ST. LOUIS

Specific chemical therapeutics is a recent advance in scientific medicine and is especially exemplified by the brilliant work of Paul Ehrlich of Frankfort, Germany. He has discovered an organic arsenic compound (dioxidyamidoarsenobenzol dichlorid) or, as it is popularly called, "606."

Ehrlich had conclusively proven that definite chemical compounds are especially attracted to certain parasites; he called these parasitotropic. These chemicals also have the property of destroying cell protoplasm and are poisonous, hence are also organotropic.

The therapeutic value of such drugs in parasitic disease is dependent on the determination of an existence of the proper relation between such parasitotropic and organotropic properties. It was of paramount importance to establish this determination for arsenobenzol, or "606," and it is now proved conclusively that the parasitotropic power overbalances by far the organotropic.

Dr. Louis H. Marks, an assistant of Ehrlich's, in an address, says: "The basic idea, that a specific chemical affinity exists between specific living cells and specific chemical substances is his (Ehrlich's) main, most valuable, broadest and most suggestive contribution to science. It was this idea that was at the foundation of his famous studies on the morphology of the cellular constitution of the blood. Ehrlich believed, and this belief found sufficient support in his twenty-five years of experience, that for each specific parasite a specific curative drug must and could be found."

The cardinal principle in the treatment of syphilis is embodied in the following: "In order permanently to cure a parasitic disease it is necessary to destroy in the shortest time every single parasite with one injection of a drug, as it can be readily seen that if complete sterilization is not achieved and frequently repeated doses are necessary, the substance would soon lose all effect and the patient would then be worse off than before treatment was begun." Ehrlich therefore has discovered a specific for

Treponema pallidum, and the writer can absolutely certify that it will completely destroy this parasite in many cases in a single injection.

Arsenic is not a new therapeutic agent. The older salts of arsenic used medicinally are tri-oxid or arsenous acid, tri-iodid, potassium arsenite, sodium arsenite, and sodium cacodylate. The predominating feature of the action of all these arsenical salts is irritation, whether used externally or internally. In addition to this property it was long ago recognized that these salts had some antiseptic effect and were intensely irritating to the gastro-intestinal tract. It has been used to improve nutrition, as in anemias and skin diseases; to control neuroses, and as an alterative in chronic malarial and syphilitic cachexias. While arsenic, whether as an organic or inorganic salt, is very rapidly absorbed, its elimination from the body does not occur as rapidly. Autopsies have shown that arsenic has been stored up in the liver and kidneys for many days following its administration. Its elimination takes place chiefly through the kidneys, the glands of the skin, the mucous membrane of the alimentary tract, in the bile and saliva. Arsenic was detected in the urine by Gaillard six and one-half weeks after the last administration of the drug.

It is of great import to bear these facts in mind, as will be shown in considering when not to administer "606," and the contra-indications to its use.

Atoxyl, an anilin-arsenic compound, has been extensively used; the studies and observation of Ehrlich with the use of this compound led him to discover arseno-benzol. Ehrlich believes, from animal experimentation, that the most effective manner of curing syphilis is by practicing his theory of "*therapia sterilisans magna*." The significance of this is the killing of as many *Treponema pallidum* (*Spirochata pallida*) as possible with a single maximum dose, as very large doses of quinin are given in some malarial cases, according to the same theory.

Indications for the Use of "606."—Before considering the use of "606" the following facts must be determined: Is the patient a recent or an old syphilitic? If he presents a primary or a suspicious secondary lesion, a smear of the secretion from such lesion should be made and examined either with the dark-field illuminating apparatus or staining, to establish the presence or absence of spirochetes. A Wassermann blood-test must be made in order to determine the condition of the patient's blood, and possibly a Wassermann test of the cerebrospinal fluid. If then spirochetes are found in such primary lesion it should, wherever possible, be excised at once, and after such excision "606" be administered. Corbus, in 1908, in harmony with Neisser and Jadason, championed the total excision of the chancre, not believing that a luetic infec-

tion could be aborted but that in excising the chancre many spirochetes were gotten rid of. Specific medication was begun immediately after such an excision; rapid and good results are reported from such treatment.

Ehrlich in a letter written Oct. 25, 1910, says: "I desire especially to emphasize the following views: primary affections or lesions should be treated as early and quickly as possible and where mostly the patients are strong, young individuals, at least 0.5 gm. of "606" should be injected intravenously. Moreover, it would be advisable for the sake of local sterilization to apply energetic local treatment, as extirpation, cauterization or some other approved method.

"The greatest precaution must be used in disease of the central nervous system and the circulatory apparatus as far as they are fit for treatment at all. Indications and contra-indications for the use of this drug have been positively established. With the exception of optic atrophy, it may be used in typical syphilitic eye affections."

Therefore in well advanced cases of cerebro-spinal syphilis as tabes, paresis, etc., it must be cautiously used, if at all. Preponderance of evidence is against its use in aneurysms.

Dose.—The dose depends on the age of the patient and the severity of the infection. For men the average intramuscular dose is 0.6 gm. In some cases an initial dose of 0.5 gm. intravenously is followed by 0.6 gm. intramuscularly in several days, and found to be beneficial to the patient. In women the average dose is from 0.45 to 0.6 gm., depending on the weight of the individual. In infants, with congenital lues, 0.002 gm. for those from 5 to 6 weeks old has been given several times intramuscularly. An especial warning is to remember that it may be advisable to administer "606" to the nursing mother instead of injecting infants. Several deaths have been reported in infants due to the large amount of endotoxins liberated from the dead spirochetes, instead of attributing such death to acute arsenical poisoning. In such a nursing mother, after the administration of "606," arsenic was not found in the milk. Ehrlich explains this phenomenon by the theory that the sudden destruction of spirochetes set free a large amount of endotoxins which excite the production of antitoxins; these latter are transmitted through the mother's milk to the child as a curative and prophylactic action.

Methods of Administration.—The method preferred and recommended strongly by Ehrlich is, first, intravenous injection of a weak alkaline solution; second, the intramuscular injection of an alkaline solution. He repudiates the injection of a suspension of the drug, as was originally used by many of the Germans.

The intravenous method will in my opinion be the most favorite method in the future. This

method was devised by Schreiber and is followed at times by some unpleasant symptoms, as vomiting, marked depression and rise of temperature. In association with Corbus I have used this method in several cases and the results were such as to recommend it as superior in many respects to the intramuscular. However, the proper technique is more difficult than with the other methods, and the greatest precaution must be exercised in having the solution absolutely clear so that no foreign particle enters the circulation. The proper appliances for making such solution must be carefully used and the introduction of air into the vein must be studiously avoided. There are none of the reactions following the intravenous method that are so commonly found after the intramuscular; 100 to 120 c.c. of solution are used for the intravenous administration; for the intramuscular, 15 to 20 c.c. are used. In both methods the skin must be as carefully cleansed as for a surgical operation, with soap, alcohol, etc., and finally the site of the injection painted with iodine. Following the injection the site of puncture should again be painted with iodine and covered with sterile gauze and collodion, or adhesive plaster. Very severe pain may follow intramuscular injection in from one to twenty-four hours. The gluteal muscles, the interscapular, or the subscapular region may be used. When injecting into the buttocks care should be used not to injure the sciatic nerve. Patients will often be unable to sit on the buttocks for a week following the injection. If "606" is injected in suspension instead of in solution, painful, large, nodular masses will follow, which will be slowly absorbed and frequently give rise to abscess. For this reason the drug in solution, being more readily absorbed, is far more preferable to the other method.

Symptoms Following Injection.—When this drug is used in non-syphilitics no rise of temperature follows its use; when the patient is a luetic, however, a slight rise of temperature may frequently follow up to 102.5 F., for about twenty-four hours.

Leukoerythrosis, perhaps hyperleukocytosis, may follow during the first two or three days; diarrhea as a rule does not occur; constipation is more usual, necessitating the daily use of a morning laxative. Dryness of the mouth and throat is common. Polyuria is a frequent complaint for two or three days following. One of my cases, a heavy smoker, stated that for one week following his injection he could not tolerate tobacco when he previously had smoked ten cigars a day. Night sweats are not uncommon, the perspiration often having a garlicky odor. Eruptions such as macular spots may frequently follow the use of the drug, lasting only two or three days. An itching, diffused erythema may follow. These eruptions as a rule are of no importance and known as the Herxheimer reac-

tion. Geronne and Huggenberg report that about half an hour after an intravenous injection a luetic eruption may become intensely red, disappearing in about twenty-four hours. Wechsellaumann attributes the Herxheimer reaction to the dose of "606" being too small to kill all the spirochetes. This may be an ordinary symptom of anaphylaxis such as is seen following the injection of serums and antitoxins. However, a second injection of the drug can be given if the theory of Wechsellaumann be correct and this treatment fortified with the subsequent use of mercuric.

I believe it is good practice to precede the use of "606" by giving by mouth for twenty-four hours pilocarpin murate in one-sixteenth to one-fortieth grain doses, well diluted, three times a day, with the idea that it will stimulate the glandular organs to secretion, and may possibly wake up some latent spirochetes into activity so that they may enter the circulation and be more readily reached by the "606." The ideal results are best demonstrated in cases of primary lesions before the spirochetes have sufficient time to invade the whole system. We need not wait for secondaries as was previously pointed out by Ehrlich but proceed to sterilize the patient by administering the initial dose, preferably as an intravenous injection, and perhaps following this in about five days with an intramuscular injection of a weak alkaline solution. The first dose will act immediately by its direct action, possibly killing a certain number of the parasites; the antibodies which now form may act in an antidotal manner on those remaining unaffected by the first injection. A second injection may kill those parasites not affected by the first or the antibodies. This is what is signified when common reference is made to the cure of syphilis by a single injection of the Ehrlich drug, viz., 0.5 gm. intravenously followed in five days by an equivalent quantity intramuscularly.

This same treatment may not alone be limited to the primary lesion but is equally efficacious in secondary and tertiary lesions. It must be remembered that comparatively few patients present themselves for treatment in the primary stage but more commonly in the early and late secondary.

Is it possible to kill all the spirochetes with one or two doses? This is impossible absolutely to determine as yet, but what we know as absolutely correct is that with a single injection we can destroy all the spirochetes in a primary or secondary lesion with such an injection, as, for example, in the chancre or a mucous patch of the mouth or fauces when examination of these lesions after such treatment failed to show a single parasite.

Ehrlich suggests that in tertiary syphilis there are more antibodies in the circulation and a single injection stimulates the organism most

remarkably, and the strain of spirochetes is much weakened and exhausted in virulency; therefore a small quantity of the specific, "606," is far-reaching.

We must remember that syphilis in the secondary stage is a cardiovascular disease, with extensive endarteritis; therefore the preliminary administration of pilocarpin muriate as above suggested to the intravenous injection of "606" theoretically is well founded.

The Wassermann test should be made before and after using the specific; it is quite essential to have a Wassermann laboratory conveniently at hand in order to study scientifically the results of our treatment. A differential blood count should be made before and after treatment so as to study the progress of the cases. In many of our cases the Wassermann reaction became negative in three weeks following the initial treatment of arseno-benzol. In one case it was negative in eighteen days after treatment.

In association with Dr. B. C. Corbus of Chicago I had the opportunity of studying the results of the treatment and its administration in thirty-five cases; these were among the pioneer work in treatment with "606" in this country. I desire herewith to express my thanks to Dr. Corbus for his kindness in affording me the opportunity for personal observation and work.

The following were among the most interesting of our cases:

Two cases of ulcerating sclerotic chancre healed entirely in thirteen days following treatment (combined intramuscular and intravenous) without any evidence of any secondary symptoms.

Thirteen cases of various secondary manifestations, all having mucous patches, examination of such patches showing spirochetes. The oldest case had these patches persisting for four years in his mouth, which were undoubtedly just as infectious as when he contracted his disease.

Cases of erosive ulcers as the primary lesion healed entirely within six days. Papulopustular and deep ulcerative syphilids completely disappeared in two weeks after treatment.

One case of cerebral luetic endarteritis, in coma for two days with hemiplegia, a true spirochetal septicemia, two weeks after the first dose of arseno-benzol was up and about; four weeks after his attack he got the second injection and was able to walk about on the street.

One case of a male with a most unsightly crustaceous syphilid of an oystershell type covering both lower limbs, trunk and face, responded most admirably to a single injection when he had previously taken six months' continuous mercurial treatment with no response.

A severe ulceration of throat, with a pseudo-membrane covering the pillars of both fauces and uvula, in which spirochetes were present, faded away in three days following treatment.

Cases in which smears of a suspicious primary lesion do not show the presence of spirochetes should be refused treatment with "606."

The following are offered as a guide for treatment as observed by the writer in the successful treatment of cases mentioned:

1. Arseno-benzol or "606" is an additional therapeutic resource and asset in the treatment of syphilis, far superior to mercury and potassium iodid, but as yet undecided whether these two universally-used drugs will be replaced by the specific of Ehrlich.

2. Supplementary treatment with mercury and potassium iodid will be an adjuvant in treatment and certainly can accomplish nothing but good.

3. Several technics of minor differences in the administration, have been used. A soluble alkaline or neutral solution is preferable to a suspension.

4. "606" should not be recklessly used. Many cases of well-developed syphilis may present contra-indications to its use, such as organic heart, kidney and lung diseases. Therefore a preliminary physical examination of a patient should be made for non-luetic diseases.

5. A Wassermann test of the blood made by a competent laboratory worker, should always precede and follow treatment with "606." Remember the personal equation must be considered in reports of the Wassermann test, depending on who made such a test.

6. The technic of administration of the remedy, whether intravenous or intramuscular, requires the greatest precaution in regard to surgical asepsis, both in preparation of the patient and the instruments and utensils used in preparing a solution of the arseno-benzol. The simplest technic is the better, the use of the fewest utensils the most desirable. Filter paper and everything else used in the technic must be thoroughly sterilized.

7. "606" should never be used as a routine medicinal agent in office practice. It must not be administered in the usual careless manner that an injection of a mercurial salt is made. A far superior asepsis is mandatory and imperative. The patient must be in a hospital and remain there for four or five days following treatment. A leukocyte count should be made before and after treatment for several days, temperature carefully watched, local signs and symptoms of any reaction carefully observed and noted.

8. Syphilitic cachexia and anemia disappear remarkably quickly. In a few days a clear, shiny skin, rosy cheeks and a cheerful countenance substitute the former resemblance of a death mask. Great caution must be exercised in using the drug in parasymphilitic conditions such as well-developed tabes, paresis, optic atrophy and other cerebrospinal manifestations.

9. It remains for the next generation, at least, to determine the exact prophylactic value of "606." Propagation of offspring from luetic parents is the essential determining factor of such prophylactic valuation in regard to whether such offspring has inherited syphilis or not.

10. It is injudicious and fallacious for a physician to promise too brilliant results to those on whom we use "606." Candidates for matrimony should not be guaranteed or assured that a premarital, sterilizing dose of the drug will eradicate all future possible traces of a former spirochetal infection.

11. Remember that arseno-benzol is a poison; while being distinctly parasitotropic there may be an especial idiosyncrasy in some individuals in whom it may be strongly organotropic. Therefore when this new remedy is placed in general distribution to the profession, fatal results may be reported for the foregoing reason as well as following any violation of the rules of thorough surgical asepsis in treatment with this new drug.

715 North Eighth Street.

THE RELATION OF THE DOCTOR TO THE DENTIST *

JESSE MILLER, D.D.S.
MARYVILLE, MO.

I want to thank you for the kind invitation which you have extended to the dental profession to meet with you here to-day and discuss the subject of the relation of the doctor to the dentist, a topic which I think should be of great importance to each of us. And if I can say one word here to-day that will assist us in any way to get closer together and be the better to help one another I shall feel amply repaid.

When your programme committee asked me to speak to you on this subject, I said I thought perhaps I would be able to tell you where the dentist required the assistance of the doctor—perhaps better than anything else. So what little I have to say will be along that line. The relation of the two professions is so close that I shall only be able to touch on a few of the general topics. For the teeth are not a part unto themselves but a part of the entire body.

In the diagnosis and especially in the prognosis of any dental work the general health of the patient is one of the most important facts to be considered, for without thorough consideration of this important phase the foundation of our work will be lost. This fact I take pains to impress on the minds of my patients, and as their doctors, we will have to look to you for this.

And just here we find the close mingling of the two professions since in our work in keeping in repair and in a cleanly condition (for prophylaxis is now considered one of the important parts of dentistry) the organs which perform the second act in digestion, namely mastication. We have to look to you for the proper assimilation and elimination of the food. And in this we find your assistance our main stay.

We need you first before the child is born, to keep the expectant mother in the best condition possible so that the youngster may be a strong, robust child. And here I want to say that the physician is sometimes criticizable for not telling the expectant mother of the liability of dental trouble during this period; that she should give especial attention to the teeth and see that any needed dental work be done during the early months of pregnancy.

How often do we find that on the return to our office of one of our patients after about a year's absence with a fine-looking child, but with such a sad lot of teeth? Or perhaps the patient returns a little earlier during the latter part of the period suffering with dental troubles and at this time it is hard to give them relief, sometimes even temporary. The doctor, being the one in position to find out the condition, should be the one to call attention to the necessity of having the proper dental work done. Now, I do not mean that the physician need make an examination of the teeth, but he should urge on the patient the necessity of dental service.

The Care of the Deciduous Teeth.—The doctor can be of great assistance to the dentist in the care of the deciduous teeth, and especially the first permanent molar (known as the 6-year-old molar). Most parents seem to fail to realize the necessity of keeping the deciduous teeth in proper condition, seeming to think they are things to be gotten rid of as soon as possible. Quite frequently I find they take the child to the family physician before consulting a dentist. The first permanent molar erupting at about the sixth year is taken for a deciduous tooth and is usually in a very bad condition when the dentist is consulted. The doctor seeing the patient so much oftener than the dentist should, it seems to me, be in position to call the attention of the parents to the condition of the teeth and to impress on their minds the necessity of preserving and keeping in proper condition the deciduous teeth until the proper time for the eruption of the permanent ones arrives, not only for the proper development of the mandibular, but for the proper mastication of food. In so many mouths of children, between the ages of 4 and 8 years, the teeth are a mass of decayed roots and discharging abscesses. Is it not here that the foundation is laid for many of the intestinal troubles and kindred disarrangements, even though they do not develop until after years? In the eastern states, especially in the larger cit-

* Read before the Nodaway County Medical Society, June 14, 1910.

ics, there is a great awakening in the dental profession in regard to the condition of the teeth of the public school children and the dental profession is establishing free dispensary service for the examination, relief and teaching of oral prophylaxis to the children and to the needy poor.

We often require the assistance of the doctor in treating neuralgic conditions, alveolar abscess, pyorrhea alveolaris and similar conditions, especially the latter, for quite frequently they are a rheumatic complication. Some eminent men in both professions now claim tuberculous troubles sometimes arise from decayed and diseased teeth. Among the specialists of the medical profession the work of the two are so closely related that it is often hard to tell where one should leave off and the other begin. In facial neuralgia the treatment or even the diagnosis is often incomplete without your assistance.

Adenoid growths and mouth breathing are two causes of various dental disorders and are first the care of your specialists, as well as the diseases of the various facial bones; all factors in disease of the teeth. In fact, gentlemen, we find the work of the two professions so closely allied, the one requiring the assistance of the other so often, that it almost seems to me we are a specialist of your great profession. Yet the remedies required in one are not always applicable to the other, a fact which perhaps I can best illustrate by the following story:

John had toothache in the night and going to the family medicine chest selected and applied a remedy. On arising in the morning his face was badly swollen. His good wife asked what he had put on his face when he got up in the night. He replied "I don't know" but going to the chest he got the bottle and gave it to her saying "Here it is." She looked at it and exclaimed "Good heavens, John, that is my bust developer."

HOSPITAL NEWS AT ST. LOUIS.—The bill changing the name of Quarantine to Robert Koch Hospital is now a law. The railroad and post-office have also changed the name of their stations to Koch. The water situation at this hospital is being satisfactorily handled by providing for a pipe line direct from the city. In the meantime all water used is boiled.

House Bill 385 provides increased salaries; creates position of dietitian, social service worker and dentist; gives junior assistant physicians (formerly interns) \$25 per month, after they have served six months without salary; eliminates the sex distinction, so that for the same labor the same salary is paid, regardless of sex, and permits certain employees to live outside of the institutions.

House Bill 388 makes it possible to carry out the wishes of the St. Louis Training School, by

having the city manage its own nursing division.

House Bill 389 establishes a temporary infectious diseases hospital on the Female Hospital grounds, making legal the informal action that was taken by this department some months ago.

These three bills have passed the House of Delegates, having been amended by reducing some salaries, but not otherwise greatly weakening them. They are now in the Council, where they will receive their second reading and be referred to committee.

There were ninety-six competitors in the recent examination for interns in the hospital department. Another examination will be held in May or June for pay positions on the resident medical staffs. At the recent examination six from other cities participated. For the June examination we are receiving applications daily from all parts of the country.

Two automobile ambulances have been added to the ambulance service.

The Infectious Disease Hospital Commission, composed of Dr. Ralph L. Thompson and Mr. Charles L. Swarts, members of hospital board; Dr. George C. Crandall, president, visiting staff; Dr. George Dock, medical section, visiting staff; Dr. James Ross Clemens, chairman, children's section, visiting staff; Dr. John C. Morfit, hospital commissioner, has made certain recommendations which have been approved by the hospital board. The recommendations are as follows:

Location.—On Infirmary grounds, west of Sublette Avenue, to the east of present Infirmary buildings. Light, heat, power and water pipe line extending from the sanitarium pumping station to the Infirmary.

Plan.—Cottage or pavilion plan, consisting of independent unit buildings, connected by corridors, two stories in height, modeled so that one or both floors of any one or more buildings can be operated together or separately. No general wards, but private rooms, with capacity of at least two beds. One convalescent ward for each group of rooms. Promenade roofs and sun porches. Single room and room group ventilation and heating. Toilet and washstand in each room. Nurses' quarters and diet kitchen for each room group.

Number of Buildings.—At least five buildings, in addition to small administration building and laboratory and fumigation facilities.

Size of Buildings.—To provide for twice the maximum number of cases that are now and recently have been under the charge of the hospital department, to be based on statistics now being compiled by the hospital commissioner.

As soon as the plans and specifications are completed, the cost will be known and necessary steps will be taken to start the erection of this much needed department.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

APRIL, 1911

EDITORIALS

CHANGE IN PLACE OF ANNUAL MEETING

KANSAS CITY TO BE PLACE OF MEETING

The annual meeting of the state association will be held at Kansas City instead of at Jefferson City. The date remains the same as that already announced—May 16, 17, 18.

The change in the place of meeting has been made necessary on account of the convention of Odd Fellows taking place at Jefferson City on the same dates as our meeting. Manifestly it would be quite impossible for the two conventions to hold sessions at Jefferson City on the same days; and it seemed inadvisable to make any change in the date of the meeting. Therefore the executive committee has decided that the association should meet in Kansas City.

The Coates House, one of the finest hotels in Kansas City, has been selected as headquarters, and some of the meetings will be held in the parlors of the hotel. The commercial exhibit also will be installed in the hotel. Other meetings will be held at the Casino adjoining the hotel. This is quite a large hall well suited to the purpose of our sessions for the general meetings and the public meetings. The accommodations at Kansas City will of course be ample and convenient, and we expect the attendance will be even larger at Kansas City than might have been true at Jefferson City.

Ever since the burning of the capitol many inquiries have been received as to where the Association would meet, and numerous expressions were heard advocating a change to a larger city, because it was thought better facilities could be obtained for transacting the work of the body. While Jefferson City could furnish halls large enough to hold the number in attendance there was no one hall that could accommodate the sections, the House of Delegates and the Council at one time; these bodies would be compelled to meet in halls situate more or less distant from each other; a condition that always detracts very seriously from the interest in the meeting.

In our next issue we will publish the program in full, together with other information concerning the meeting.

MEDICAL PRACTICE ACT VALID

The supreme court has declared the medical practice act to be valid. This decision will settle the contention of the so-called drugless healers that treating the sick without the use of drugs or the knife is not practicing medicine within the meaning of the medical practice law.

The decision was written by Judge Franklin Ferriss in the case of George F. Smith, a chiropractic convicted in Webster County of practicing medicine without a license. The case was tried by Judge George H. Williams, of St. Louis, sitting in place of Judge Cox, and afforded Judge Williams an opportunity of repeating instructions he gave to a jury at St. Louis in a similar case, "that holding oneself out and representing and professing to be able to heal diseases, no matter by what process, is practicing medicine within the meaning of the law." The supreme court affirms this instruction. The validity of the medical practice act being now established beyond question the way is made clear for prosecuting persons who attempt to invade the medical field without having properly qualified themselves to assume the serious duties imposed by this profession.

The tendency toward quackery and charlatanism in the treatment of the sick by unprincipled persons, whose sole aim is to reap a golden harvest, has caused the legislatures of the different states to pass stringent laws governing the practice of medicine and the qualifications of medical practitioners; and the higher courts recognize that these laws are not only constitutional, right and proper, but are absolutely necessary for the adequate protection of the health of the people.

The realization and acknowledgment by men whose attainments have lifted them to positions of prominence in a community and especially when they hold high positions in the judicial affairs of the state, that administering to the sick and afflicted can be safely entrusted only to those who have been trained in modern schools of medicine, will have a restraining influence on sick persons who are easily beguiled by the quack, and tend strongly to direct them to the real doctor whose time, talent and energies are given to discovering the best means of preventing and curing diseases at the least cost to the patient.

VIVISECTION

Animal experimentation in the search for the cause and cure of disease has a champion in *Puck*, the weekly newspaper. In the issues of February 22 and March 22 *Puck* published full page pictures emblematic of the fight for and against vivisection. The February number contained a drawing showing a dignified man at work, scalpel in hand, ready to begin his investigation on an anesthetized rabbit. At one end of

the picture are a number of well dressed, prosperous looking individuals, men and women, in an attitude of excited protest: these are the sentimentalists crying "For Heaven's sake, don't." At the other end of the picture are a number of dim, shadowy, figures, lean, hungry, crippled and deformed men, women and children—the sufferers—who plead, "For humanity's sake, go on."

The March number contains a vivid picture of a burning building—disease—with people dropping from the upper stories into a "vivisection life-net" and a stream of water—knowledge—playing on the fire; the life-net is held by "the fire-fighting doctors." These are surrounded by the antivivisection crowd crying, "Away with that life-net," and with physical force attempting to tear the doctors away from their humanitarian pursuit. It is a picture full of horror and sadness: horrible because of the useless deaths from preventable disease; sad because of the misdirected energies of a class of people who ought to be engaged in more commendable pursuits.

In taking up the fight for more light, more knowledge, *Puck* is doing a great work for humanity.

DOCTORS DIGGING THE DITCH

Under the above heading the *St. Louis Republic* recently made the following editorial comment:

When a great medical inventor or chemist discovers anything which promises to be or is of great benefit to mankind his discovery or invention at once becomes the common property of the human race without royalty or rate beyond that of personal service of the physicians who may administer such remedies.

When a great commercial chemist or inventor makes a discovery of value to humanity he at once capitalizes it, and all mankind pays high tribute in the form of sometimes prohibitive royalty.

In digging the Panama Canal the United States is obliged to pay tribute to monopolists of machinery and to patentees of various mechanical devices.

Yet had it not been for the physicians who have made the canal zone habitable through sanitation the efforts of all the inventors and "world conquerors," of engineers and machinists would amount to exactly nothing.

The doctors of the United States, not its engineers or mechanics, are doing the most important work in the great isthmian ditch. Yet it is the soldier, the engineer, the mechanic to whom the honors are accruing.

Why is it that temporal honor and financial reward seem so bent upon being diverted from the ways in which they should properly travel?

The construction of the Panama Canal has been, and is, a magnificent object-lesson on the possibilities of prevention of disease by the application of facts connected with modern scientific medicine. No one will deny that the French had as good plans, as good engineers, as good machinery, and as good workmen as we have; but the French could not build the canal. And what was the reason? Simply that they could not keep

enough men out of the hospitals and graveyards to complete it. The men sickened and died as fast as they could be imported. When the United States undertook the construction of the canal, the government did not call in the representatives of various erratic cults, "mind-cure healers" or "patent" medicine venders to solve the problem as it related to health. Its solution was entrusted to educated, experienced, specially trained, scientific medical men; to those who brought to its solution the latest and best methods of modern science. And the results have justified the methods. The civilized world has marveled at the result of the work of the Sanitary Department of the Isthmian Canal. Yet, it is simply the application of modern medical science. There is not a village, not a city, not a state that cannot secure equal results in the way of prevention of sickness and the saving of life, if such methods are adopted and if competent men are given authority and opportunity.—*Journal A. M. A.*

LAY COMMENT ON MEDICAL CODE

The code of ethics of the medical profession has been so often ridiculed and scorned by laymen, and not infrequently sneered at by a certain element in the profession itself, that any defense of these principles, which all right-minded physicians respect and rigidly follow, coming from observers outside the profession is gratifying and encouraging. A recent editorial in the *St. Louis Star* should go far toward convincing unprejudiced persons that the ethical code of the medical profession stands for the protection of the people as well as for the uplift of the physician. Under the caption "Higher Medical Ethics" the *Star* says:

An encouraging indication of progress toward a higher plane of professional ambition and a higher standard of professional ethics in the practice of medicine may be discovered in the decisive stand which has been taken by reputable physicians in St. Louis in condemning quack practices which sometimes have prevailed.

While many of the most conscientious physicians regard it as a violation of the ethics of their profession to direct attention to their calling even by means of professional cards in newspapers, or otherwise, their views and opinions will command the highest measure of respect as long as adhered to in good faith.

It's a theory of the physicians that they have nothing to sell, no wares to urge upon the attention of the public.

If, however, there are physicians who resort to the disreputable methods in law designated as "snitching" in order to obtain patronage, a condition exists which calls for correction. The public will commend efforts of honorable members of the profession to cure these evils.

It has been asserted that medical "colleges" have existed that are willing and anxious to confer degrees for a cash consideration and without regard to the qualifications of "graduates." If such conditions exist, or if there are recognized colleges whose equipment and

faculty and course of study do not meet the reasonable requirements of an age of progress, the evil calls for remedy.

In all the world there is none who must be so implicitly trusted as is the physician. His confidential relations to the public and the family are such as to imperatively demand that he be a man of character above suspicion and of professional attainment above reproach.

The public of St. Louis will heartily commend all efforts of medical societies, or of individual members of the medical profession, which have in view the correction of possible existing evils and the encouragement of rules of conduct and practice whose ethics will command the respect and confidence of all the people.

It has been charged openly that there are physicians in St. Louis eager for commissions—commissions on drugs—and doubtless the charge is true in a limited degree. The physicians themselves are in position to render most effective service in remedying these evils. By doing so and by driving from their ranks disreputable and incompetent practitioners they will confer a blessing upon humanity and earn the lasting gratitude of the community.

DR. F. T. MURPHY APPOINTED PROFESSOR OF SURGERY, WASHINGTON UNIVERSITY

To the three permanent and full time heads of clinical departments already appointed—Dr. George Dock, Professor of Medicine and Dean of the Medical School, Dr. John Howland, Professor of Pediatrics, and Dr. David L. Edsall, Professor of Preventive Medicine—a fourth has been added by the appointment of Dr. Fred Towsley Murphy of Boston to the Professorship of Surgery. At the beginning of the reorganization of the medical school it was planned to secure a professor of surgery, who should devote his entire time to medical teaching and research. Like the other permanent heads of clinical departments, the Professor of Surgery will engage in no private practice but will limit himself to scientific work and consultation.

Dr. Murphy was born in Detroit, Michigan. He was graduated from the Phillips Andover Academy, received his bachelor's degree from Yale University, and his doctor's degree in medicine, *cum laude*, from Harvard University. He has been Surgical House Pupil at the Massachusetts General Hospital; Assistant Surgeon of the Infants' Hospital for four years; Assistant in Anatomy, Assistant Teaching Fellow in Surgery, Assistant in Surgery, Surgeon to Out-Patients, Visiting Surgeon to Clinic in the Harvard Medical School; and is Secretary to the Surgical Section of the Suffolk District Medical Society. He is a member of the Massachusetts Medical Society; the American Medical Association; the New England Pediatric Association; the Boston Society of Medical Sciences; and the Gastro-Enterological Association. Dr. Murphy has been for three years, and is still, a Trustee of the Phillips Andover Academy. In addition to his hospital and teaching work, he has actively engaged in

original research and has published in various medical journals many important papers, revealing a broad interest in general surgery with special leanings toward abdominal and, more especially, toward intestinal surgery. Dr. Murphy will take up his residence in St. Louis before the opening of the session of 1911-12.—Washington University Record.

To the Alumni of the Missouri Medical College, St. Louis Medical College and Washington University Medical School:—All graduates of these schools are cordially invited to take part in a social reunion and dinner at Kansas City, Mo., May 17, during the meeting of the Missouri State Medical Association.

Tickets, stating time and place, may be had by sending price of plate (\$2) to Dr. R. S. Weiss, 346 N. Boyle Avenue, St. Louis, not later than May 10.

Come and have a good time among friends.

JOSEPH GRINDON, St. Louis.

RICHARD S. WEISS, St. Louis,

W. A. CLARK, Jefferson City.

Committee.

CORRESPONDENCE

To the Editor:—As chairman of the Committee on Necrology for the Missouri State Medical Association, I wish to request through THE JOURNAL that all members of the Association, especially secretaries of county societies, will take it on themselves to forward at once to me or to Dr. A. E. Platter of Memphis, or Dr. L. C. Chenowith of Webb City, as full an obituary notice as possible of any physician who may have died since the last meeting; or place us in communication with the family or friends of deceased physicians, that the committee may obtain the necessary data for its report at the annual meeting in May. We have no precedent to guide us in obtaining the desired information, and therefore we must get it as best we can. Any assistance rendered by the physicians of the state will be greatly appreciated as we are anxious to discharge our duty faithfully and make as complete a report as possible. I think the list should include all reputable physicians, whether members of the Association or not. Many of the most worthy members of the profession on account of age or infirmity have dropped out of the Association of necessity; they should not be overlooked.

Thanking you and others for any assistance that may be given, I remain

Sincerely yours,

J. E. HARRIS, M.D., Marshall, Mo.,

Chairman Committee on Necrology.

NEWS NOTES

DR. J. N. BASKETT and wife of Hannibal have departed on a six months' tour of Europe.

DR. COLLASOWITZ of St. Louis has returned from abroad and opened offices in the Butler Building at Grand Avenue and Arsenal Street. He will limit his practice to diseases of the eye.

DR. GUSTAV B. SCHULZ of Cape Girardeau has been appointed a member of the State Board of Health. Dr. Schulz is a graduate of the Beaumont Hospital Medical College, 1892, and is a member of the county, state and national associations.

DR. JOHN G. PARRISH of Vandalia has been reappointed a member of the Board of Curators of the State University. Dr. Parrish is a graduate of the Marion-Sims Medical College, 1891, and is a member of the county, state and national associations.

THE Western Surgical Association will meet in Kansas City in December, 1911. Dr. W. J. Frick of Kansas City was elected second vice-president. Dr. Jabez N. Jackson has been appointed chairman of the local committee on arrangements.

DR. G. P. BOWDEN of Appleton City has been appointed a member of the Board of Managers of State Hospital No. 3 at Nevada. Dr. Bowden is a graduate of the Jefferson Medical College, 1891. Although a regular practitioner he is not a member of the county, state or national medical associations.

DR. CHARLES WOOD FASSETT has resigned from the position of secretary of the St. Joseph-Buchanan-Andrew County Medical Society on account of removal from St. Joseph to Kansas City where the combined *Medical Herald* and the Kansas City *Index-Lancet* will be published in the future. Dr. Fassett has been secretary of the St. Joseph-Buchanan-Andrew County Medical Society since its organization.

CONVICTION FOR PRACTICING MEDICINE WITHOUT A LICENSE.—J. C. Elliott, a "cancer specialist" at Kirksville, was arrested recently and sentenced to serve twelve days in jail for practicing medicine without a license. He served his term and promises to be good in the future. Elliott was prosecuted by the members of the Adair County Medical Society, who are making an effort to clear the county of these fakers.

DR. M. P. OVERHOLSER of Harrisonville has been elected superintendent of State Hospital No. 3 at Nevada, to fill the unexpired term of Dr. J. W. Lamson who resigned on account of ill health. Dr. Overholser is also a member of the State Board of Health. He is a graduate of the Kansas City Medical College, 1884. He has been a member of the county, state and national medical organizations for many years and has served the profession in numerous official capacities.

DR. WILLIAM F. KUHN of Kansas City, formerly superintendent of the State Hospital No. 2, St. Joseph, has been exonerated by the Kansas City Court of Appeals. Dr. Kuhn was relieved from the duty of superintendent by the Board of Managers "for the good of the service." He brought suit against the Board, nominally to recover salary due, but also involving a review of his administration and the right of the board to dismiss a superintendent without trial. The Court of Appeals in deciding the case said: "The evidence shows Dr. Kuhn blameless."

THE Medical Society of the Missouri Valley held its twenty-third semi-annual meeting at St. Joseph, March 16, 17 and 18. A varied program made an interesting meeting for those who attended and the St. Joseph physicians entertained their guests in splendid fashion. Dr. Heinrich Stern of New York delivered the oration on medicine, his subject being "The Decay of Nations." On Thursday evening a banquet was given to the members and guests including the ladies; about 200 were present. There were about 100 physicians in attendance at the meeting.

HOSPITAL FOR WARRENSBURG.—The physicians of Warrensburg and Johnson County will soon have good hospital facilities for the care and treatment of such patients as require attention in a well-equipped and modern hospital. Dr. Harry F. Parker has purchased property admirably suited to the purpose and will remodel the building now standing, adding a brick wing. When completed it will be a two-story structure with a capacity for twenty patients and furnished with every necessary detail of hospital equipment. Such an institution has long been needed at Warrensburg and has the support of all progressive physicians in Johnson County and the prominent citizens of that community.

DOCTORS ARRESTED.—Twelve doctors in Kansas City were arrested recently by United States authorities, charged with using the mails to advertise operations of a criminal nature. The United States law prohibiting these practices is very broad and provides a maximum penalty of

five years in prison or a \$5,000 fine or both fine and imprisonment for persons guilty of sending through the mails any offer to perform criminal abortions or any directions as to where such operations will be performed, even though the sender of the letter does not perform the operation. It is said these doctors made little or no effort to conceal their practices, but operated with shameless boldness. In several cases government inspectors were taken to the doctor's office and were shown the facilities arranged for performing abortions.

INTERNATIONAL COMMISSION ON CONTROL OF BOVINE TUBERCULOSIS.—A meeting of this commission was held in Buffalo on February 27. It was decided that the first task would be the preparation of material for a small pamphlet on the subject of bovine tuberculosis. This pamphlet is to be very simply and plainly worded, for the general public, especially stock owners. It is to embody a full statement of available information on the subject so far as it concerns the stock owner in a practical way and so far as such information is accepted by the commission.

This primer will probably be published in very large editions in the United States and Canada, and be given very wide distribution by the Canadian and United States Governments and by our several states in this country.

The committee entrusted with the responsibility of preparing this pamphlet is Dr. V. A. Moore, Cornell University; Dr. J. R. Mohler, Federal Bureau of Animal Industry; Mr. J. J. Ferguson, representing American packers; Dr. Reynolds, Minnesota, representing American veterinarians in state work; Dr. F. Torrance, Manitoba, representing Canadian veterinarians.

The next meeting of this commission will be held at Toronto late in August.

PUBLIC HEALTH MEETING AT JEFFERSON CITY.—During the session of the legislature, on March 7, a public health meeting was held in the House of Representatives. The meeting was conducted by the members of the State Medical Association, the State Board of Health and the Commission on Tuberculosis. There were present Governor Hadley; Dr. H. E. Pearce, president of the State Medical Association; Dr. Funkhouser, chairman of the Committee on Public Policy and Legislation; Dr. Goodwin, secretary of the State Medical Association; Dr. Robinson, Dr. Overholser and Dr. Hiller, of the State Board of Health; Dr. Schauflier, Dr. Porter, Dr. Homan and Mr. Lynch, of the Commission on Tuberculosis; Dr. W. G. Moore of St. Louis and Dr. Cutler, Pure Food Commissioner.

Dr. Pearce announced the object of the meeting to be an effort to enlighten the people on the real purposes of the medical profession in the effort to gain the cooperation of the public and the law makers in the prevention of disease. Dr.

Robinson spoke of the many deaths from typhoid fever, about 5,000 in this state, almost all of which could have been prevented had precautionary measures been well understood by the people, and the numerous deaths from tuberculosis, a large proportion of which could be prevented if the people would use the well-known means of preventing its spread. Small-pox too, he said, should be better controlled than it is, for at present there are a great many cases in the state. Dr. William Porter described the splendid results that are being obtained in the treatment of tuberculosis at the State Sanatorium. Dr. Schauflier called attention to the necessity of caring for chronic tuberculous cases as these are not admitted to the State Sanatorium. Mr. Lynch gave some statistics showing the ravages of tuberculosis. Dr. Cutler mentioned instances of impure food being sold by merchants and described the benefits of food inspection. Dr. Moore spoke of the necessity of teaching children in schools the principles of hygiene and sanitation. Dr. Homan called attention to bubonic plague, a disease that is now present in this country and communicated by rats and squirrels. Dr. Funkhouser and Dr. Hiller also addressed the audience.

There were about 150 persons present and considerable interest was aroused in the subjects discussed.

Lantern slides were used to picture the ravages of disease in crowded communities, and the beneficial results of pure air and attention to the simple rules of sanitation in the school and home.

MICROORGANISM FOUND IN THE BLOOD OF ACUTE CASES OF POLIOMYELITIS [*From the Department of Health, Commonwealth of Pennsylvania*].—In examining the blood from acute cases of poliomyelitis in the human beings, and also in monkeys in which the disease was produced experimentally, an organism was found, different in morphologic characteristics from any heretofore described which may or may not, on further investigation, prove to be the etiologic factor in the causation of the disease. Blood-smears being fixed in methyl-alcohol for one minute and stained with carbol-thionin, the organism appears as a faintly stained blue rod with regular cell wall about 10 microns long and about 0.8 microns in width, curved at an angle of 60 to 75 degrees at one end, occasionally at both ends. At times, the curved end is bulbous. Some of the organisms appear to have a very finely granular protoplasm when the highest amplification is employed. They may be discerned by means of a 4 mm. dry objective but their characteristics are much more satisfactorily delineated under the 1-12 oil immersion lens. They are found free in the serum as well as within the body of the red blood-cell.

The organisms do not retain the violet color when stained by the method of Gram but assume

the color of the counter stain which, as generally used in this laboratory, is a very dilute solution of carbol-fuchsin.

The bloods examined were from ten different cases of acute poliomyelitis in children and were taken during the epidemic of last summer and autumn, and from thirteen cases of the disease during the acute stage, which had been produced experimentally in as many monkeys.

Blood-smears from three normal human beings were carefully examined and although the search for these organisms was diligently made, none was found. Smears were made from the bloods of thirteen normal monkeys with negative results. After inoculation with the virus these same monkeys gave positive results. The blood of other normal monkeys gave negative results.

Blood-smears were stained with iodine and sulphuric acid in order to test the organisms for cellulose, but no blue stained organisms were seen.

Smears from the cords and brains of paralyzed monkeys, and from one human case were examined, but none of the new organisms was found.

Filtered virus stained with carbol-thionin and by Gram's method showed none of these organisms.

Defibrinated blood, three weeks to two months old from two paralyzed monkeys showed the forms in increased numbers.

Cultures made from the blood of a paralyzed monkey, in blood-bouillon, plain bouillon, and blood-agar, examined after having been inoculated three weeks, showed the presence of the organism in increased numbers. Dorsett's egg medium was inoculated with the same blood at the same time but the organism was not found in smears from the surface of the medium or from the water of condensation.

We have searched without success for moving organisms in fresh blood, in old tubes of defibrinated blood from paralyzed monkeys, in blood-bouillon, plain bouillon, serum bouillon cultures three weeks old and in the condensation water in three weeks old cultures on Dorsett's egg medium under dark-field illumination.

Success in isolating the organisms has not attended our efforts as yet.

SAMUEL G. DIXON, M.D.

HERBERT FOX, M.D.

JAMES B. RUCKER, M.D.

SOCIETY PROCEEDINGS

FIFTY-FOURTH ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION

Jefferson City, May 16, 17 and 18, 1911

PRELIMINARY PROGRAM

Title to be announced. J. S. Gashwiler, Novinger.

Title to be announced. T. B. Herbert, Lebanon.

Treatment of Pneumonia in the Adult. H. A. Kilian, Portageville.

Physical Movements of Man an Index to his Mental Status. T. F. Lockwood, Butler.

Extragenital Chanere. John W. Marchildon, St. Louis.

Recent Studies in Eclampsia. Geo. C. Mosher, Kansas City.

Title to be announced. H. F. Parker, Warrensburg.
The Etiology and Treatment of Dementia Præcox. G. Wilse Robinson, Kansas City.

Anterior Poliomyelitis; Its Diagnosis. E. Sanborn Smith, Macon.

Title to be announced. M. A. Smith, Gallatin.

The County Society: What it Should Do to Advertise the Quack. H. E. Songer, Jamesport.

Function of the Ductless Glands. C. W. Watts, Fayette.

Mucomembranous Colitis. Rollin H. Barnes, St. Louis.

Title to be announced. W. R. Beatie, Marshfield.

Unrecognized Symptoms of Disturbances of the Prostate and Verumontanum. John R. Caulk, St. Louis.

Early Care of Acute Abdominal Conditions. William T. Coughlin, St. Louis.

Personal Observations in the Treatment of 136 Consecutive Cases of Uterine Myoma. Walter B. Dorsett, St. Louis.

Rupture of Urinary Bladder Associated with Fracture of the Pelvic Girdle; Report of a Case. James P. Henderson, Kansas City.

Thoracic Drainage. Howard Hill, Kansas City.

Formalin Injections in Tuberculosis of the Joints. Roland Hill, St. Louis.

The Choice of Operative Measures in the Treatment of Extrauterine Pregnancy. Frank Hinehey, St. Louis.

Obstruction of the Bowel; With Special Reference to Early Diagnosis and Treatment. Walter C. G. Kirehner, St. Louis.

Intestinal Obstruction Caused by the Urachus; Report of a Case. C. M. Nicholson, St. Louis.

Common Deformities of Hip Disease; Their Treatment and Correction. Archer O'Reilly, St. Louis.

Title to be announced. T. E. Potter, St. Joseph.

The Value of Alcohol in Surgery. M. G. Seelig, St. Louis.

Pathology of the Rectum in Diagnosis and Treatment; Illustrated with Lantern Slides. W. H. Stauffer, St. Louis.

Title to be announced. J. B. Taulbee, Joplin.

The Operability of Uterine Cancer. Fred J. Taussig, St. Louis.

Some Points in Connection with Breast Tumors. H. Tuholske, St. Louis.

Symposium on Exophthalmic Goiter.

Diagnosis. William W. Graves, St. Louis.

Pathology. Ralph L. Thompson, St. Louis.

Treatment. Willard Bartlett, St. Louis.

Symposium on Obstruction of the Urinary Tract.

Urinary Obstruction. Henry Scherck, St. Louis.

Obstruction at the Bladder Neck. F. M. McCallum, Kansas City.

Obstruction of Upper Urinary Tract. Jacob Block, Kansas City.

Symposium on Retrodeviation of the Uterus.

Etiology. O. Hoffman, Kansas City.

Diagnosis. George Gellhorn, St. Louis.

Treatment. O. Beverly Campbell, St. Joseph.

Further Deductions in the Study of Tuberculosis. William Porter.

Diagnosis of Rabies. F. A. Baldwin, St. Louis.

Venous Anesthesia. Gustav A. Lau, St. Joseph.

Doederlein Pubiotomy. Percy H. Swahlen, St. Louis.

Indications for the Use of the X-Ray in Goiter. J. N. Scott, Kansas City.

Title to be Announced. John Young Brown, St. Louis.

Carcinoma; with Special Reference to Carcinoma of the Lip. T. E. Potter, St. Joseph.

Etiology and Treatment of Acute Insanity. John D. Seba, Bland.

Intermittent Lump. Franklin E. Murphy, Kansas City.

A Differential Study of Multiple Benign Cystic Epithelioma and Adeno-Sebaceum in the Negro. Richard L. Sutton, Kansas City.

Menace to Eyesight from Trachoma. John Green, Jr. Significance of the Fauical Tonsil; Its Pathology and Indications for Removal. Max A. Goldstein, St. Louis.

Title to be announced. G. W. Gosney, Kansas City. Treatment of Episcleritis with Atoxyl. W. L. Kennedy, St. Joseph.

Title to be announced. Guy L. Noyes, Columbia. Diseases of the Eye an Index to Constitutional Diseases. C. W. Watts, Fayette.

Title to be announced. F. E. Woodruff, St. Louis. Blindness following Administration of Organic Arsenic. A. W. McAlester, Jr., Kansas City.

DAVIESS COUNTY MEDICAL SOCIETY

The Daviess County Medical Society held a special meeting at Gallatin, March 7, at which time the following officials and committees were elected and appointed:

President, N. M. Wetzel; vice-president, A. G. Minnick; secretary-treasurer, M. A. Smith; reporter, N. M. Wetzel; board of censors, Chas. Pipkin, H. E. Songer, Geo. Netherton; program and scientific works, Drs. Wetzel, Smith and Doolin; public health and legislation, Drs. W. L. Brosius, J. Z. Parker, and A. G. Minnick.

Dr. Songer was retained as delegate to state convention which meets at Jefferson City in May, and Dr. Doolin was elected alternate.

After the election some interesting cases were reported by Drs. Doolin, Pipkin and Wetzel, and a very interesting specimen exhibited by Dr. Wetzel. The attendance was good and the majority of the doctors in our county are striving to keep up with the advanced ideas in medicine and surgery, that they may give to their clientele service second to none in the state. We hope to take up the Post-Graduate Course in our county society in the near future.

The next meeting will be held at Jameson about the second week in April, at which time some interesting papers will be read and discussed by members of the Society.

N. M. WETZEL, M.D., Reporter.

GREENE COUNTY MEDICAL SOCIETY

The Greene County Medical Society met in regular session, Friday, March 10, with the President, Dr. B. F. Fortner, in the chair. There was a good attendance and a splendid interest taken in the work of the Society. The Society has an excellent library of which all are justly proud. The membership is increasing, there being one member, Dr. Ferrie Smith, elected by transfer at this meeting.

Dr. Dewey read a carefully prepared paper on "Cystitis." The etiology, pathology, classification, diagnosis and treatment of this disease were discussed in a clear and concise manner, which showed that much study and research work had been done in the preparation of the paper.

The Society is doing good work, but needs the cooperation and support of more of the members.

THOMAS O. KLINGER, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

The Howard County Medical Society met at Fayette, on Friday, March 3, 1911, at the office of the

secretary. Present: Drs. Lewis, Moore, Lee, Wright, Bonham, Burgwin, and C. W. Watts.

Letters from the editor of the STATE JOURNAL were read, and also the letters from Senators and Congressmen, State Senator Faester and Representative Walton, of Howard County. The Society endorsed all the suggestions made as to the legislative acts now before our State Legislature at Jefferson City; and we want it known that every member of the Howard County Medical Society endorses our STATE JOURNAL and its editor, and will stand by them in all objects for legitimate progress and advancement of our profession. We find we are well represented by them and feel safe in commending all his suggestions.

Dr. C. W. Watts was requested to furnish a paper on "The Function of Ductless Glands" for the next session of the Missouri State Medical Association at Jefferson City.

Dr. U. S. Wright was elected President for 1911; Dr. Duke Gentle, of New Franklin, first vice-president, Dr. W. R. Hawkins, of Glasgow, second vice-president. Dr. C. W. Watts was re-elected secretary-treasurer-reporter for 1911.

Dr. Lee reported several very interesting cases of treatment with "606" that he witnessed in St. Louis recently.

Dr. Wright, the newly elected president, took the chair and made some very sensible remarks touching on the importance of the prompt and regular attendance of the members at the April meeting, Friday, the 7th. Dr. A. W. Moore was appointed to prepare a paper on the "Modern Treatment of Syphilis by '606' Method," and Dr. Lee to lead the discussion. Dr. Wright urged a full attendance of members and he said he would make the necessary appointments of censors and committees at the next meeting of the Society.

Dr. Watts was highly complimented by the members present and given a vote of thanks for his faithful services as secretary for years past, and Mrs. Scott presented the secretary with a fine anatomical atlas, which was the property of her husband, the late Dr. J. B. Scott, a member of this Society. We had a very interesting meeting and the secretary reported all dues paid up for 1911, and the decks clear and ready for action. The Society adjourned at 5:00 p. m., to meet in regular session Friday, April 7, 1911.

C. W. WATTS, M.D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY

MEETING MARCH 7

The program for this evening consisted of a symposium on Pancreatitis.

Surgical Aspect, by Dr. Howard Hill.

Medical Aspects, by Dr. C. C. Conover.

Pathology, by Dr. W. K. Trimble.

MEETING MARCH 9

The Eye, Ear, Nose and Throat Section held its meeting on this date, the following program having been announced:

Case Report, Bilateral, Horizontal Heteronymous. Hemianopsia with Perimetric Chart, by Dr. J. W. Shearer.

Case of Left Lateral Homonymous Hemianopsia, by Dr. Hugh Miller.

Subject unannounced, by Dr. J. H. Thompson.

MEETING MARCH 14

The Obstetric Section had charge of this meeting and presented a symposium on Eclampsia.

Symptomatology, by Dr. M. A. Hanna.

Pathology and Morbid Anatomy, by Dr. O. Hofmann.

Prophylactic Treatment, by Dr. B. G. Hamilton.

Medical and Surgery, by Dr. C. A. Ritter.

MEETING MARCH 21

The program for this evening consisted of papers as follows:

Progress in the Treatment of Goiter, by Dr. E. G. Blair.

Orthotic Albuminuria, by Dr. F. W. Froeling.

MEETING MARCH 28

This was clinical evening and a number of specimens and patients were presented for examination by the members.

On March 3rd at the meeting at the General Hospital, Dr. Frank J. Hall presented a stereopticon exhibit of pathologic specimens. The instrument used was Bausch & Lomb's latest and best model of projection lantern and reflectoscope combined. It was ordered that this be purchased and the amount collected by contributions. One hundred dollars has already been subscribed and it is hoped that the balance will soon be collected. The committee on collections and contributions consists of: Drs. F. J. Hall, R. B. Brewster, W. K. Trimble, St. Elmo Sanders and O. D. Castle.

PLATTE COUNTY MEDICAL SOCIETY

The Platte County Medical Society convened in regular session at Platte City, March 1, and passed resolutions endorsing the Owen Bill and condemning the Penrose Amendment to the Postal Appropriation Bill now pending before the National Legislature.

The following scientific papers were read and discussed: "Cystitis and Prostatitis," by Dr. A. S. Herndon, Camden Point; "Ophthalmia Neonatorum," by Dr. A. S. J. Smith, Dearborn; "Erysipelas," by Dr. G. A. Harrel, Platte City.

The secretary was instructed to order public health charts to be used in the public schools and other public places.

Dr. A. S. J. Smith was elected treasurer to fill the unexpired term of Dr. F. M. Shafer, who has recently moved to Osborn, Mo.

Members present: Drs. E. R. Hull, A. S. Herndon, S. Redman, Alva Taylor, A. S. J. Smith, and G. A. Harrel.

The next meeting will be held at Platte City, April 5. Dr. William Frick, of Kansas City, will be with us at that time.

A. S. J. SMITH, M.D., Secretary-Treasurer.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society held its regular meeting in Lancaster, March 23, 1911. Members present: Drs. Justice, Keller, Potter, Bridges, Drake, Gerwig, and Mitchell; visitor, Dr. Wilson.

The county school teachers met with us after we got through with our business.

County Commissioner of Public Schools, Mrs. Bunch, read a paper on the "Need of Inspection of School Children and Sanitary and Hygienic Precautions."

After discussion Dr. J. B. Bridges read a paper on "Hygiene." Discussion followed.

Dr. W. A. Potter read a paper on "Statistics and Mortality Rate of the Different Infectious Diseases." Discussion followed.

Drs. Keller, Hight, Farrington and Mitchell are to read papers at the next meeting June 29, 1911.

H. E. GERWIG, M.D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY

The Shelby County Medical Society met in Shelbyna March 28, in Dr. Vaughn's office. On account of the unusual amount of sickness and bad roads the society has missed two meetings.

The progress of certain cases reported at previous meetings was reported by Drs. Battersby and Wood. Dr. Battersby's cases were interesting, especially one where appendicitis had been diagnosed by several physicians. The symptoms appeared to be typical of appendicitis, but in one attack the doctor discovered a beginning hernia on the left side; he at once fitted a truss and all symptoms disappeared. He reported another case of similar character.

Dr. Dummit reported an interesting case, that of a young man with swelling and tenderness in the region of the right pectoral muscle. The temperature was intermittent, varying to 103 and 104. The point was incised but no pus found. The case was freely discussed.

Dr. Carson thought many of these cases were due to la grippe infection and advised careful watching for anything imaginable following an attack of grippe.

The Society voted to endorse the bill for civil service regulation in state hospitals.

Drs. Furnish, Maddox and Dummit were elected members.

Officers for 1911: President, F. K. Roy; vice-president, Charles Chapman; secretary and treasurer, A. M. Wood; delegate, H. C. Vaughn; alternate, R. S. Battersby; censors, J. A. Furnish, Jesse Maddox.

Members present, White, Daniel, Carson, Maddox, Chapman, Vaughn, Smith, Dummit, Battersby, Furnish, Wood.

May 2 was chosen as date of the next meeting.

A. M. Wood, M.D., Reporter.

ST. LOUIS MEDICAL SOCIETY

MEETING OF MARCH 1

This meeting was conducted under the auspices of the Ophthalmic Section. Dr. John Green, Jr., reported a case of "Complete Traumatic Aniridia with Injury to the Lens; Recovery with Useful Vision." The patient was present and was examined by the members.

Dr. John G. Calhoun was elected editor in place of Dr. W. A. Shoemaker, resigned.

MEETING OF MARCH 4

This was a meeting of the general society, and the evening was devoted to a paper contributed by invitation by Dr. F. Kreissl, of Chicago, on "Vesical Stone and Its Management, with Special Reference to Litholopaxy." The discussion was opened by Dr. Henry J. Scherek.

After the meeting Dr. Kreissl was entertained by the members in the Society's parlors.

MEETING OF MARCH 11

This meeting was conducted by the section on Internal Medicine. The following papers were read: "Primary Tumors of the Mediastinum. Difficulties of Diagnosis, Report of Three Cases," by Dr. Louis H. Behrens. "Chylothorax: Report of a Case," by Dr. Llewellyn Sale. "The Value of the X-ray in Mediastinal Diseases; with Demonstration of Skiagraphs," by Dr. R. D. Carman. "Surgical Aspects of Mediastinal Disease," by Dr. Herman Tuholske.

The meeting was well attended and the subjects thoroughly discussed, the exhibition of skiagraphs by Dr. R. D. Carman being particularly valuable.

MEETING OF MARCH 18

This was the regular meeting of the general society. The paper of the evening was contributed by Dr. Jesse S. Myer, representing the St. Louis Medical History Club, on "Life and Letters of Dr. William Beaumont, Embracing Some Hitherto Unpublished Material; with Lantern Slide Demonstration."

MEETING OF MARCH 25

This meeting was conducted by the Surgical Section and the members listened to an account of the meeting of the Twenty-Third French Congress of Surgery at Paris, by Dr. Francis Reder.

WEBSTER COUNTY MEDICAL SOCIETY

The Webster County Medical Society met on March 15, at Seymour. Those present were: Drs. M. Highfill, W. R. Beatie, E. Trimble, W. J. Rabenau, J. W. Good, C. H. McHaffie, W. A. Atkins, J. R. Bruce, T. S. Bruton, W. H. Bollinger, and Dr. J. S. Sayers of Rogersville, who was admitted to membership.

Dr. M. Highfill reported a case of "Purpura Hemorrhagica," following an attack of pneumonia, which was very severe and resulted in death of the patient, a child of two years.

Dr. Rabenau reported a case: A woman who had sent away for some medicine advertised to cure gall-stones. The patient thought she had gall-stones, and the treatment consisted of two powders and a mixture of six ounces of oily looking substance. After taking these substances she passed a handful of round looking balls which the patient thought were gall-stones, but which on examination were found to be only soap balls, caused by the olive oil. The psychological effect was such that she recovered, temporarily, from her delusion.

Owing to failure to have our meeting in December, 1910, and as this was our first meeting in 1911, officers for 1911 were elected as follows:

President, W. J. Rabenau, Fordland; vice-president, C. H. McHaffie, Rogersville; secretary-treasurer, J. R. Bruce, Marshfield; censor for three years, W. H. Bollinger, Seymour; delegate, W. R. Beatie, Marshfield; alternate, W. J. Rabenau, Fordland.

Adjourned to meet at Bells Springs on the James River, in June.

W. R. BEATIE, M.D., Secretary.

BOOK REVIEWS

OBSTETRICS. The Year Book Publishers, 40 Dearborn Street, Chicago.

DeLee's work on obstetrics creates a favorable impression, especially the chapters on "Treatment of Cervical Rigidity," "Lacerations of the Cervix During Labor," and "Care of the Newborn." Its conciseness and simplicity of presentation recommend the book to the busy practitioner. D.U.S.

THE PRACTICAL MEDICINE SERIES, VOL. VII. PEDIATRICS AND ORTHOPEDIC SURGERY. Edited by Isaac A. Abt, M.D., and John Ridlon, M.D. The Year Book Publishers, 40 Dearborn Street, Chicago.

This series is prepared for the benefit of the busy practitioner who wants to find, in a concise and plain form, the present day knowledge and opinion on topics alike as to etiology, pathology and treatment, in a brief and condensed form.

This book is a compilation of extracts from monographs written by experts in these special branches, and presents the various subjects in the light of the modern views and investigations. W.R.

A TEXT-BOOK OF OBSTETRICS; INCLUDING RELATED GYNECOLOGIC OPERATIONS. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Sixth Revised Edition. Octavo of 992 pages, with 847 illustrations, 43 of them in colors. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5 net; half Morocco, \$6.50 net.

Hirst's Text-Book of Obstetrics has now reached its sixth edition which bespeaks its popularity and value.

One of the first things which forcibly strikes the reader is the clearness of the type and the beauty and vividness of the illustrations. The revision has been most thorough and painstaking. Some of the former illustrations have been entirely eliminated and many have been added, thus enhancing the value of the work. The book is divided practically into two parts—Obstetrics and Diseases of Women in relation to the most important function of a woman's life—child-bearing.

To the student the book can be commended as a clear cut, accurate, forceful, plain and concise work. A few words clear and to the point are used instead of a mass of words and ideas, the meaning of which is obscured by a multiplicity of expressions, making the work one of special value to the student as well as to the busy practitioner.

The busy man does not wish to be obliged to delve through a large mass of reading to obtain wished for information upon a certain point. In this work of Hirst's he can quickly find what he is in search of and in a few sentences he gains that is needed.

The whole period of pregnancy is brought before the student in such a clear style that the subject is well understood and thoroughly comprehended by him.

The whole process of labor is carefully detailed. The various stages are presented so vividly and brought before the reader so minutely that it is almost as interesting as a work of fiction.

The diseases of women, especially during pregnancy, must or should be well understood by the general practitioner so as to enable him to perform the minor operations immediately following labor where needed as well as some of the major ones and thus avoid suits for malpractice.

On the whole, when once the reading or study of the book is begun it is with great reluctance that it is laid aside unfinished to be taken up again at some future time.

The work cannot be too highly recommended to the student and busy doctor. Very little superfluous reading is to be found in this work, a fact to be highly commended and unfortunately too rare in books on this subject.

This work, supplemented by the teaching ability of the author, cannot fail to fit the student thoroughly for meeting the various obstetrical conditions which he will meet. H. S. H.

CATALOGUE ST. LOUIS MEDICAL LIBRARY
3525 Pine Street

(Continued from page 322)

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THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

MAY, 1911

Number 11

E. J. GOODWIN, M.D.,
EDITOR

PUBLICATION COMMITTEE { M. B. CLOPTON, M.D., Chairman
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ORIGINAL ARTICLES

THE HODGEN SUSPENSION SPLINT: A RELIABLE APPARATUS IN FRACTURES OF THE FEMUR *

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ST. LOUIS

It would seem hardly necessary, in this presence, to dilate on the group of anatomic facts that in various combinations tend to make fracture of the femur a grave condition, and a satisfactory method of treatment difficult to attain. Nor is it essential to more than mention the diversified methods and numerous forms of apparatus that through the centuries have been, and, indeed, at present remain in vogue.

In the light of our present knowledge, it may be stated authoritatively that there is no single apparatus nor no special method that may be confidently employed in the treatment of all fractures of the femur. Nor are we encouraged in the fond hope that this condition will be modified to any marked degree. For though method and apparatus may be improved, the underlying anatomic and pathologic factors will remain unchanged.

It is with regret that I debar myself from discussing the usefulness of direct methods of attack of the fractured bone by means of dowel pins, screws and plates. For the present, however, I wish to fix your attention on apparatus applied to the exterior of the thigh and leg.

Of the various splints, the long lateral, Buck's extension, and plaster of Paris (together with modifications and combinations of these) have probably enjoyed the greatest vogue. By means of these the two cardinal conditions of fixation and extension have been produced. In actual practice, from twelve to twenty pounds' pull are produced by surgeons employing Buck's extension, and ultimate shortening, to a greater or less

extent, is commonly in evidence. Nor are we much more successful in this regard in the use of plaster of Paris. These statements will be substantiated by study of a tabulation of extensive series of cases—also the observation of results attained in your own hands, or the hands of your immediate colleagues. In addition to the probability of an ultimate shortening following the employment of the ordinary apparatus, we are confronted by another fact, by no means negligible: the patient, during his long weeks of convalescence, is by no means in a desirable condition of comfort and repose. This discomfort is particularly noticeable in oblique fractures with considerable displacement, when external pressure is permitted to exist (this includes not only lateral splints but all forms that employ bandages or straps): for the sharp bony spikes are kept in irritating apposition with the softer structures.

We should divest our minds of the notion that with the ordinary splints, reduction of marked displacements is commonly secured. Furthermore, owing to the powerful musculature of the thigh, together with its actual weight, accentuated, during the long weeks of convalescence, by the continuous pull of gravity, we must not cherish the dear delusion that primary reduction may be maintained by ordinary methods. From the foregoing we may readily, and correctly, infer that the problem of reducing and maintaining in satisfactory fixation the fragments of a fractured femur, is beset by difficulties peculiar, complex and of grave import.

In fractures of the upper third, with displacement of the superior fragment forward and upward, largely due to the psoas, the inferior fragment tending backward, influenced by gravity; in mid-third oblique or spiral fractures with marked displacement; and in lower third fractures, where the superior fragment is commonly forward and the inferior fragment drawn backward by the gastrocnemius; in all these displacement fractures, "long splints," "lateral splints," "extension splints" (and to a lesser degree, plaster of Paris) are found lacking both in regard to

* Read before the Surgical Association of Rock Island Lines, Kansas City, Mo., Dec. 17, 1910.

reduction and fixation, as well as subjective comfort.

The postulate may be laid down that rectilinear extension, as applied to fractures of the femur (with the possible exception of transverse fractures of the shaft without displacement) is unsound in theory and unsatisfactory as a method of surgical practice. Furthermore, the greater the obliquity and displacement of shaft fractures, and the greater the displacement of upper and lower third fractures, the more marked will be found the inadequacy, indeed the futility, of rectilinear extension: and as a consequence, all methods based on this principle. This group of splints is, moreover, not satisfactory in compound fractures, gun-shot wounds or any condition in which topical manipulation is imperative; not satisfactory where markedly displaced sharp or jagged bony spikes have been thrust into the tissues; not satisfactory when perineal counter-pressure is needed; not satisfactory when urination, defecation and the accomplishment of a suitable toilette are made difficult; in truth, the latter two conditions, so frequently superimposed on a patient, are needless as well as harassing: and any traction method or splint which produces such a result is to be condemned as essentially crude and essentially unsurgical.

A splint suitable for femoral fractures should conform in a high degree to the following requirements:

1. Conducive to local comfort and general repose.
2. Offer the minimal obstacle to urination, defecation, bathing, massage, manipulation and dressing of wounds, shifting of patient from position to position, care of the bed.
3. Wide range of adaptability.
4. Reasonable ease of primary adjustment.
5. Reasonable ease of subsequent control.
6. Susceptible of ready alteration.
7. If possible, moderate in price (when purchased in the shops); but preferably susceptible of extemporaneous construction, either by the surgeon himself or one acting under his orders.

I desire to commend to your thoughtful consideration the Hodgen suspension splint as an apparatus based on sound principles, and one that fulfils to a remarkable degree the requirements above noted. "The Hodgen splint" (as commonly phrased) is neither a recent invention nor an unknown apparatus; but, though known rather widely, it has never secured the general employment which its efficiency warrants. It is a matter of speculative interest why this condition obtains, and the following is offered in explanation. It is not a splint that the average man can adjust or control without either a ready comprehension of things mechanic, or, on the other hand, an adequate instruction from one familiar with its use. Furthermore, in the comparatively infrequent discussions of this splint in

the literature, the illustrations rarely, if ever, correctly portray the splint or the suspension angle. As the comfort of the patient and the efficiency of the splint depend so largely on the angle of suspension we may readily comprehend why many surgeons, led astray by faulty illustrations, have been forced to discard the splint.

Hodgen (Hodgen "On the Treatment of Fractures of the Femur," *St. Louis Med. and Surg. Jour.*, viii, N. S., May 10, 1871) gives "the credit of indicating the best principle for the management of fractures of the thigh by suspending the limb, semi-flexed, from some remote point, and allowing the weight of the limb, with the obliquity of the suspending cord, to accomplish the required extension," to Nathan R. Smith of Baltimore. (Other writings of Hodgen on this splint may be found in *St. Louis Med. and Surg. Jour.*, May, 1866, and Reports St. Bartholomew's Hospital, 1867). Mudd (the elder) (Mudd: "The Hodgen Suspension Splint," *Med. News*, May 10, 1890) very properly credits Smith with exemplifying the advantages of oblique extension in his "Anterior Splint," and asserts that the Hodgen suspension splint is a modification of Smith's apparatus. In the latter, Mudd was wholly correct, in that both splints derive their value from the employment of identical forces; but the fact should not be overlooked that the aforesaid "modification" has made the Hodgen apparatus vastly superior to its forerunner.

It is probably difficult for one unacquainted with the splint to comprehend how a definite and continuous traction may be produced quite sufficient to overcome muscular contraction, quite sufficient to reduce displaced termini, quite sufficient to maintain reduction; all with comfort to the patient. The matter is really quite simple: the force employed is gentle though continuous, no perineal or other point of counterpressure is needed, for the body weight is utilized as counter extension. As stated above, the ordinary extension splints employ twelve to twenty pounds; by contrast, the Hodgen splint rarely employs so much as ten pounds, and the average (could it be ascertained) would doubtless prove far below that amount—probably about five or six pounds.

On the initiative of Mudd (q. v.) Nipher and Worthington determined the actual pull exerted by the Hodgen splint. They found that "in a particular case where the patient weighed 150 pounds, the weight of the leg estimated at 21 pounds, and the suspending cord formed an angle of 15 degrees with the perpendicular; that 6.1 pounds was the extending force applied to the femur."

When once the plan of action of this splint is clearly comprehended, its control proves to be a simple matter.

The practical question, how to increase or diminish traction is readily solved by increasing or diminishing the obliquity of the suspending

cord and elevating or lowering the footlegs of the bed. The ease with which this is accomplished may be assumed when the work of Nipher and Worthington is consulted. As noted above, patient 150 pounds, limb estimated at 21 pounds, angle suspending cord 15 degrees; the extending force was found to be 6.1 pounds. Their further findings show that "if the angle (i. e., the suspending cord with the vertical) was increased to 36 degrees, . . . the sum of the forces is found to be 14.7 pounds."

Notwithstanding the small force employed, it is remarkable, even to those versed in the technic, what may be accomplished, not the least of which is automatic reduction of the fragments, and their maintenance in proper position.

After many years' experience with this splint in both private and hospital practice, which included the various types of femoral fractures, and after witnessing its employment by competent colleagues, I have been impressed with the fact that the personal equation is almost negligible. It is conceded that the splint must be understood, must be properly adjusted, properly suspended, properly maintained. Beyond that, the individuality of the surgeon may be omitted from consideration, for the splint may be relied on to do yeoman service, and the results of the first case (with the above provisos) will be as satisfactory as that of the thousandth.

It may be worth while to bear in mind the following routine suggestions. A single bed is preferred to a double bed; a firm mattress to a soft one; do not permit the mattress to sag; overcome this by inserting some cross slats to rest on bed frame: elevate footlegs of bed about six inches (two bricks apiece answer admirably); have the footpiece sufficiently wide so that the plaster strips will not unduly exert pressure on the malleoli; the strips themselves should extend so high as the knee, the leg having been shaved; after strips are in position, cover in leg with snug roller bandage. The assistant should maintain moderate traction on leg (with one hand), and footpiece and cord (with other hand). Place splint in position, bring crossbar close to footpiece, adjust and tie cord. The inner bar should reach the pubes, the outer bar to the anterior superior spine of ilium. Three or four muslin strips inserted beneath limb (two above and two below the knee, are useful) are now looped over the bars and pinned (these are temporary slings, in which the limb may rest). The lower segment of the splint should lie in same plane as the tibia. Now suspend splint, so that the cord will form an angle with the perpendicular of about 20 degrees; many cases will be adequately handled with a 15 degree angle: it is comparatively rare that 35 degrees will be found necessary. Mudd (q. v.) has made the practical suggestion that "if the pulley through which the cord passes is fixed in a ceiling which is nine to twelve feet high, a

perpendicular line dropped from the pulley should fall beyond the foot of the adult patient." Complete the cradle by a series of imbricated strips (the successive overlap being about one-third of the diameter of the bandage) beginning at the heel. In cases of upper third and neck fractures, it is important that special attention be devoted to supporting the upper half of the thigh; this will be accomplished by careful adjustment of the strips clear to the end of the outer bar, so that the gluteal fold is well covered in. Suspension must now receive its final adjustment, the distal segment of splint should parallel the bed, the heel swinging about two inches in the clear. If weather is cool, cover entire limb (within cradle) with light wrap; if warm, leave open. Traction may be increased, not only by increasing the angle of pull, but by increasing the elevation of footlegs; furthermore, one or two sand bags laid transversely on the bars will be found highly efficacious and will in no wise interfere with the comfort of the patient.

From what has been said it may be foregathered that tonic muscular contraction will be successfully overcome by this splint. This fact should be borne in mind for it is of great importance; on it depending, in no small degree, not only the comfort of the patient but the automatic reduction force exerted by the splint.

The problem is somewhat different when we consider the distressing clonic contractions encountered in individuals of unstable nervous equilibrium, or in those where considerable trauma is incidental to, or concomitant with, the fracture itself. Parenthetically, it may be mentioned that many of these clonic contraction cases are produced by the employment of excessive traction. Gentle pressure along the thigh in the form of long thin sand bags, well warmed, will often solve the problem; in addition, nerve sedatives should be given until repose is secured.

Hodgen states in his monograph (q. v.): "It has also been objected that in compound fractures the elevated position of the knee will cause the pus to percolate toward the hip. I admit the fact, and suggest as a remedy that in no other splint can the position of the limb to the body be so readily changed as in those suspended: they may hang down as well as hang up, and yet extension will be maintained if the suspending cord be sufficiently oblique." This shrewd comment by the author of the splint is of interest from at least two standpoints: first, the anticipation of pus following a compound fracture. We are reminded of surgical progress since 1871 (date of monograph); for not a few of our compound fractures to-day go on to recovery without suppuration; interesting in the second place in accentuating the wide range of usefulness of this splint in that by markedly increasing the obliquity of the suspending cord, the limb may actually "hang

down," and yet be maintained in competent traction.

It is a pleasure to direct attention to a thoughtful article by Robinson of London (Robinson: "Hodgen's Splint in Private Practice," *The Practitioner*, London, April 19, 1909). He suggests the inadvisability of using the splint where a complicating injury of the leg exists that would prevent the application of the plaster strips. Nor has he found it useful in separation of the lower epiphysis, in children.

It might be added that the overhead suspension method will ordinarily be found to prove most useful in children, partly on account of the lightness of the child's body and therefore its relative inadequacy as a counter-extending force, partly on account of restraining the juvenile tendency to inquisitive meddlesomeness.

The following would seem to be self-evident:

1. Shortening depends on displacement.
2. With increased displacement will be found increased shortening.
3. The most important factors in accentuating displacement are: (a) obliquity of line of fracture; (b) muscular contraction; (c) gravity.
4. To successfully cope with a femoral fracture with terminal displacement and consequent shortening, a method or apparatus must be employed that will adequately control these factors.
5. The most successful method of inducing and maintaining relaxation and repose in contracted muscles is found in producing constant and gentle traction in the longitudinal axis.

I wish to record as the result of my experience that under intelligent supervision the Hodgen suspension splint will be found to adequately meet numerous difficulties incident to femoral fractures, that it has a wide range of usefulness, and that it will yield gratifyingly excellent results.

CHEILITIS GLANDULARIS APOSTEMATOSA WITH ASSOCIATED CHEILITIS EXFOLIATIVA *

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KANSAS CITY, MO.

Cases of cheilitis glandularis apostematosa, an affection originally described by Volkmann¹ in 1870, are comparatively rare, while instances of cheilitis exfoliativa, a well-defined clinical entity which was first studied and accurately described by Stelwagon² in 1900, are also rather infrequent.

Up to this time, thirteen cases of cheilitis glandularis have been reported, five by Volk-

mann, four by Purdon,³ one by Howard Fox⁴ and three by me.⁵

Clinically, the disease is characterized by a thickened and edematous condition of one or both lips, more often the lower only, with hypertrophy of the mucous glands and enlargement of the follicular orifices. When the lip is everted, it is possible to see these widely dilated openings, and when pressure is applied over the glands a glistening secretion exudes, which resembles drops of dew on the previously dried surface of the lip. In three cases, abscesses have developed. There is generally an associated catarrhal inflammation of the buccal mucosa. The disorder usually appears early in life, and is very chronic.

In my last two cases, which were the first ones ever examined histologically, there was present an enormous dilatation of the ducts of the mucous glands, with thickening of the walls. The

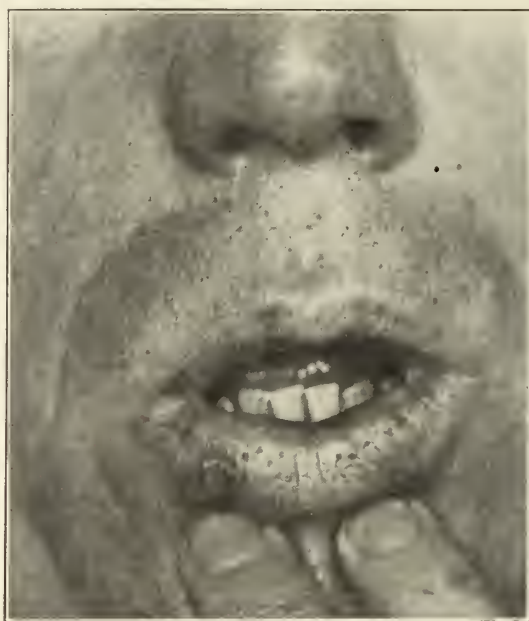


Fig. 1.—A typical example of cheilitis glandularis apostematosa. The cicatrix marks the site of a former abscess (Case 2 in my series).

hypertrophic changes were to be seen in the acini as well as in the ducts, and in some of the appendages the glandular substance was greatly increased in amount. The cells of the acini were chiefly of the mucous variety, in an active state of secretion, but considerable numbers of serous cells also were observed. The neighboring papillae also were increased in size.

The alterations in the corium were surprisingly slight. There were some degenerative changes in the connective tissue, but not so marked as to be particularly noticeable. The

* Read at a joint meeting of the Kansas City Dental and the Jackson County Medical Societies, Feb. 14, 1911.

1. Virchow's Archiv., 1870, Bd. f, S. 142.

2. Jour. Cutan. Dis., 1900, p. 268; *Ibid.*, 1904, p. 351.

3. Brit. Jour. Derm., 1893, p. 23.

4. Jour. Cutan. Dis., 1909, p. 229.

5. Jour. Cutan. Dis., 1909, p. 150; Monatsh. f. Prakt. Dermat., September, 1910, "Tunna's Festschrift."

elastic fibers were increased both in size and number (tissue from a normal lip was studied for comparison), but the arrangement was unchanged. There was considerable thickening of the interacinal connective tissue. It is very probable that this hypertrophy, together with the enlargement of the ducts, is what gives the impression of shot-bag-like resistance to the finger when a case is examined clinically.

Three of Volkmann's patients recovered under the use of potassium iodid internally, but none of the other cases reported have been cured by this or any other drug. The condition of my first patient was somewhat benefited by a long series of exposures to the x-rays, but I found the most satisfactory method of treatment to be excision, by means of a Keyes' cutaneous punch.



Fig. 2.—Dilated and hypertrophied mucous duct in cheilitis glandularis apostematosa (about 15).

Since the publication of my last article on this disease, I have had under my care two more, both typical, uncomplicated cases.

CASE 4.—W. F. B., male, single, 29, lawyer. *Family history:* The cutaneous history of the family is negative. *Personal history:* The patient is a native of Texas, and a resident of the City of Mexico. His general health has always been good, and he denies ever having had either gonorrhea or syphilis.

He has had interstitial gingivitis for the past eighteen years. He has always been a mouth breather.

Present illness: Ever since the patient can remember his lower lip has been thicker and more prominent than normal. At intervals, the border has been covered with a stringy, tenacious exudate which escaped from a score or more of minute, circular or oval openings situated on the mucous surface. The disease was worse in the spring and summer, but at any time considerable amounts of mucus could be forced out by

squeezing the lip tightly between the thumb and finger. Abscess formation has never occurred.

Examination: The patient is a well-built, athletic individual, with brown hair and eyes. The bridge of the nose is narrower than normal, and nasal breathing is labored and almost impossible. There is no evidence of a seborrheic dermatitis of the scalp or face. Some of the teeth are loose, and pus can be squeezed from the sockets. The tongue is normal, and there are no scars. There is present a chronic catarrhal inflammation of the buccal mucosa, and the tonsils are enlarged and reddened.

The principal changes noted, however, were in the lower lip. The mucous surface was rendered almost sieve-like by a number of circular orifices, varying in size from a millet seed to the head of an ordinary pin. There were twenty-seven of these openings in all, and the intervening areas of mucous membrane were puffed and swollen so as to resemble somewhat the top of a tufted mattress.

From the inner side of the lip, the enlarged glands and ducts could be plainly felt (like tiny bags of shot), and when pressure was applied minute amounts of a sticky, gelatinous fluid poured out of the orifices and collected on the dry surface of the lip. There was practically no scaling, and no redness of the contiguous epidermis.

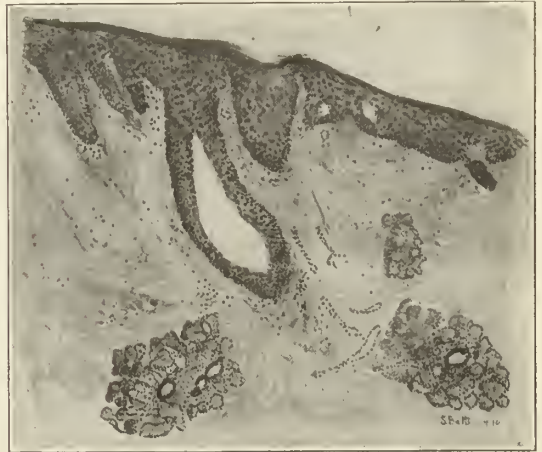


Fig. 3.—Distended duct of mucous gland in cheilitis glandularis apostematosa (about 15).

The patient was referred to Dr. D. L. Shumate, of this city, for further examination. Dr. Shumate found adenoids, hypertrophied tonsils, and enlarged turbinates.

CASE 5.—C. C. T., male, married, 33, druggist. Referred to me by Dr. H. N. Carver, of this city.

Family history: The cutaneous history of the family is negative.

Personal history: The patient is a native of Iowa, and a resident of this city. His general health has never been very good, although there is no history of a serious illness. He denies ever having had syphilis. The nasal passages are not clear, and the patient has breathed through his mouth at night ever since he can remember.

Present illness: The lesions on the lower lip have been noticeable for about ten years. Abscesses have never developed.

Examination: There is present a catarrhal inflammation of the buccal mucous membrane, although not so severe as in the case just described, and the glandular changes also are not so marked. The dilated follicu-

lar orifices are less numerous (there are only seventeen in all), and the lip is only about one and one-half times thicker than normal.

Although well-defined examples of cheilitis exfoliativa are not nearly so infrequent in dermatological practice as cases of cheilitis glandularis, only a few separate instances have been reported. In addition to Stelwagon's contributions on the subject, Ravitch⁶ has recorded four examples of the disorder, seen in private and dispensary practice. Galloway's⁷ case was probably one of this affection. The disease is characterized by a chronic inflammatory process which involves the border of one or both lips, with the formation of slight, dry, adherent scales and crusts. There is very little if any thickening, and the bright redness, itching, and liquid exudation distinctive of an eczema are wanting. Exacerbation and

has been troubled with seborrheic dermatitis of the scalp for many years.

Present illness: For the past fifteen years there has been present a chronic inflammatory process confined mainly to the border of the lower lip. The condition is much worse at some times than at others, but exacerbations do not occur regularly, and can be ascribed to no particular cause. The lip has always been normal in size and outline. The affected border is usually covered with dry, tightly adherent scales, the forcible removal of which gives rise to considerable pain and discomfort. At times the lip is almost smooth, and again the entire mucous surface is so covered with scales and crusts as to markedly interfere with the flexibility of the part. During these exacerbations, cracks sometimes occur in the integument, giving rise to considerable pain and discomfort. The contiguous mucous membrane and the tongue have never been involved, although nearby areas on the chin occasionally are attacked. The patient has been troubled more or less with seborrheic dermatitis of the scalp ever since he can recollect.

Examination: The patient is a large, well proportioned individual, with light brown hair and grey eyes. There is some evidence of seborrheic dermatitis on both the scalp and face. The nasal passages are normal. The buccal mucosa is pink in color, and there are no

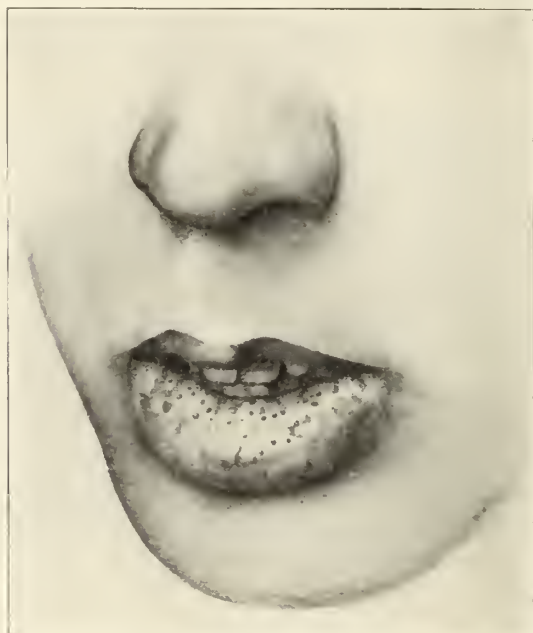


Fig. 4.—Cheilitis glandularis apostematosa with associated cheilitis exfoliativa (Case 1).

improvement may be noted from time to time at irregular intervals. Neighboring areas on the skin sometimes are attacked, and, in a few instances, the dorsum of the tip of the tongue, and the buccal mucous membrane adjoining the lip have been involved.

The two following cases were seen during the past year:

CASE 1.—C. D. L., male, married, 39, physician. Referred to me by Dr. F. M. McCallum, of this city.

Family history: The cutaneous history of the family is negative.

Personal history: The patient is a native of Ohio, and a resident of Kansas. His general health has always been excellent. He has never had syphilis. He



Fig. 5.—Cheilitis glandularis apostematosa with associated cheilitis glandularis and epithelioma.

scars on the tongue or inner surfaces of the cheeks. The teeth and gums are unaffected. There is no evidence of the presence of Fordyce's⁸ disease. The mucous glands of the lower lip are normal in size. The lip is not thickened or more prominent than usual, and the orifices of the mucous ducts cannot be seen. The mucous membrane is less flexible than ordinary, and darker in color. It is almost completely covered with thin, adherent scales with everted edges. Some of the scaly masses were larger than others, and their appearance was suggestive of the curly edged plaques of mud sometimes seen on a river bank a few days after a heavy rain. When these crusts were forcibly detached (an operation that gave rise to some pain), a slightly abraded, tender base was left. There was very little if any thickening of the mucous membrane, although it is more or less inelastic.

Treatment: A salicylic acid, sulphur, and rose water ointment mixture was prescribed, and the patient used it faithfully for some time. But the benefit derived was only transitory, and at the second consultation I advised a series of exposures to the x-rays. Eight treatments were given, at a distance of 15 cm., a soft

6. Jour. Cutan. Dis., 1908, p. 359.

7. Brit. Jour. Derm., 1895, p. 113.

8. Jour. Cutan. Dis., 1896, p. 413.

tube being employed, and the result was very satisfactory. While the case was not cured, the condition was much improved, and during the past four months there have been no severe relapses.

CASE 2.—A. W. F., male, single, 24, truck man. Referred to me by Dr. Harry T. Morton, of this city.

Family history: The patient's brother (now aged 28) has for many years been troubled with a similar disease of the lower lip. Otherwise the cutaneous history of the family is negative.

Personal history: The patient is a native of Missouri, and a resident of Kansas City, Kansas. His general health has always been good. He denies ever having had syphilis. He has had a seborrheic dermatitis of the scalp and face for the past ten or twelve years.

Present illness: Ever since early boyhood, the patient has suffered from a more or less continuous inflammatory process which involves the border of the lower lip

and trunk. The buccal mucosa is normal. The nasal passages are clear. The vermilion border of the lip is the seat of a typical cheilitis exfoliativa, which, on the left side of the mouth, extends downward for some distance on the anterior surface of the lip. The mucous glands apparently are unaffected.

Histopathology: Under cocain anesthesia, the drug being injected subcutaneously, two small pieces of tissue were excised from the lip, at points near the muco-cutaneous junction. One-half of each of the specimens was fixed in alcohol, mounted in celloidin, and serial sections made. For staining purposes, methylene-blue, hematoxylin-eosin, and Weigert's solution were employed. The remaining pieces of tissue were fixed in a 4 per cent. aqueous solution of formalin, frozen, sectioned, and stained with scarlet R., with Delafield's hematoxylin for a counter stain.

The corneous layer is thickened, and many of the cell nuclei, which are long and slender, and lie parallel

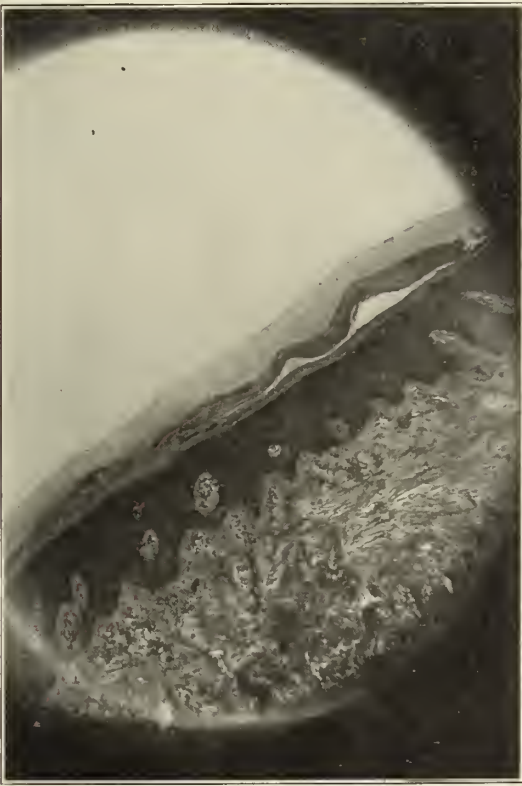


Fig. 6.—Section from border of lip in Case 2, cheilitis exfoliativa (Spencer, Ap. 1-4).



Fig. 7.—Section from border of lip in Case 2, cheilitis exfoliativa (Spencer, Ap. 1-4).

and the adjoining skin. The disorder is present all of the time, but it is worse in the spring and fall than at other times. There is some pain, burning in character, but very little itching. Sometimes cracks form, and when these lesions occur they heal very slowly. The affected areas on the epidermis adjoining the lip give rise to no subjective symptoms, but their color and location render them rather conspicuous during an exacerbation. The scaling is quite pronounced at times, but the exfoliated particles are very thin, and resemble tiny oyster shells in shape. To the patient, the vermilion border often feels as if it were made of stiff leather.

Examination: The patient is a short, heavy-set man with dark brown hair and eyes. There is an abundant scaliness of the scalp, and evidence of the presence of a seborrheic dermatitis is also to be seen on the face

to the surface of the skin, still persist even in the uppermost portion. The line of demarcation between the stratum corneum and the granular layer is clear and distinct, but the cells comprising the latter are not so sharply outlined as in normal tissue, and some of the nuclei stain poorly and unevenly. Both the transitional and prickle cell layers are thicker than usual, acanthosis being a prominent feature.

Many of the cells in the lower part of the prickle layer present numerous peculiar clear spaces, almost or completely surrounding their nuclei, as if the cell substance had shrunk away from the nucleus, or the latter had shriveled up, and pulled away from the intercellular substance that formerly closely encompassed it. These changes are particularly marked in the vicinity of the rete. At some points, entire cells apparently are missing, but on closer examination the

faintly stained rim of an epithelial cell can be seen encircling the opening.

Only a few of the cells show mitotic changes. The cells of the rete are swollen, and irregular in size and shape. The papillae also are slightly swollen, and densely infiltrated with leukocytes and small round cells. The capillaries extending into the papillae are dilated, and the lymph spaces are wider than normal. In the upper corium are irregularly distributed collections of plasma-cells. No mast-cells are to be seen. There is some interstitial edema throughout the cutis. No fat, or sign of fatty structure is to be found. No trace of coil or sebaceous glands or ducts can be demonstrated in any of the sections examined. The elastic tissue is normal in amount and distribution.

If one omits all reference to the coil glands and to the presence of the much disensed droplets of fat, the pathologic changes observed in

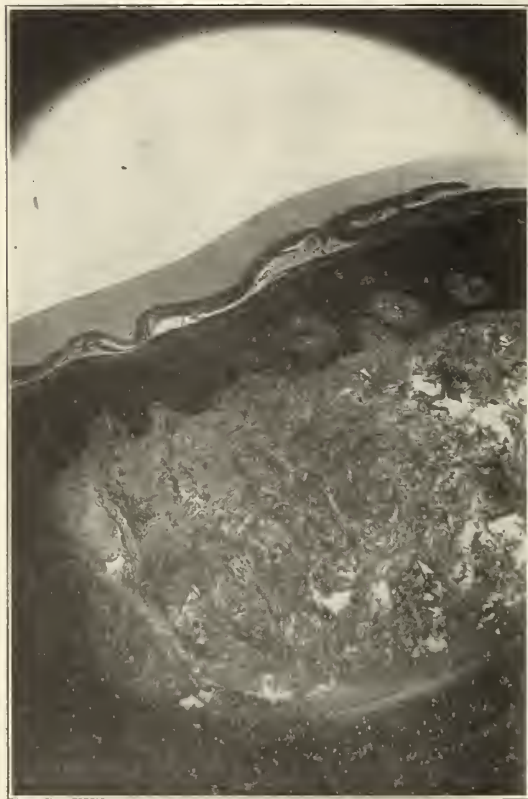


Fig. 8.—Section from border of lip in Case 1, cheilitis glandularis with associated cheilitis exfoliativa (Spencer, Ap. 1-4).

Association, Jour. Cutan. Dis., 1904, p. 355). If the differential diagnosis is to lie between these three diseases, then the first named undoubtedly has a clear field. Syphilis is easily ruled out, and the affection bears no resemblance whatever, either clinically or pathologically, to the disorder first described by Fordyce,¹⁰ and called pseudo-colloid of the lips by Crocker.¹¹ The acute character, and the very decided inflammatory manifestations seen in Baelz's¹² disease are sufficient to eliminate it as a possible factor.

Recently, I have had an opportunity to study two cases of cheilitis in which there was apparently a combination of the diseases described by Volkmann and by Stelwagon. While it is true that some scaling was observed in three of Volk-

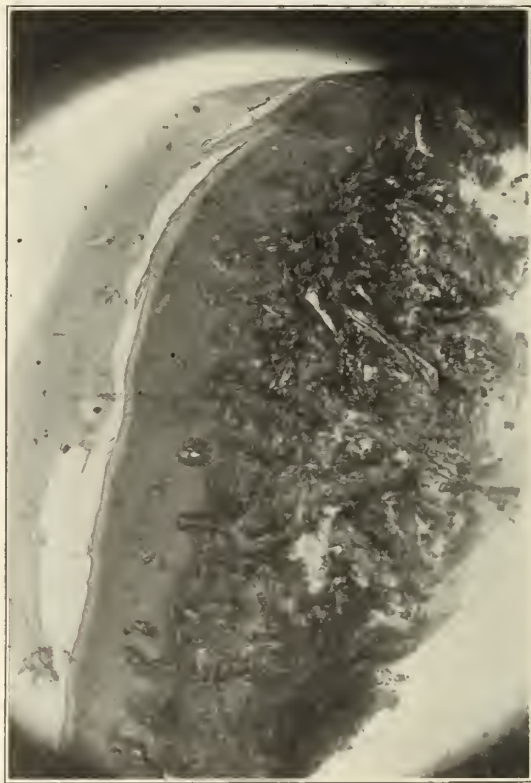


Fig. 9.—Cheilitis glandularis apostematosa with associated cheilitis exfoliativa, showing increase of elastic tissue (Spencer, cbj. 1-4, no ocular).

these sections are as characteristic of those described by Unna (Histopathology of the Diseases of the Skin, Walker's translation, William F. Clay, Edinburgh, 1896, p. 222) and by Elliot⁹ as occurring in dermatitis (eczema) seborrheicum as two similarly diseased specimens of skin and mucous membrane can well be.

The condition has been variously ascribed to seborrheic dermatitis, lupus erythematosus, and chronic eczema (see discussion at the twenty-eighth meeting of the American Dermatological

mann's patients, my observations in five typical, uncomplicated cases of the disorder lead me to believe that this manifestation is not characteristic of cheilitis glandularis, and when the associated changes are such as to simulate closely the clinical features of cheilitis exfoliativa, to me the evidence is sufficient to warrant the conclusion that both affections are present in the same individual.

10. Jour. Cutan. Dis., 1896, p. 413.

11. Diseases of the Skin, Blakiston's Sons, 3rd edition, p. 758.

12. Monatsh. f. prakt. Dermat., 1890, p. 317.

9. Jour. Cutan. Dis., 1893, p. 205.

CASE 1.—U. C. C., male, single, medical student, 25.

Family history: An elder brother, who is a physician, has been similarly affected ever since early boyhood. Otherwise, the cutaneous history of the family is negative.

Personal History: The patient is a native of Missonri, and at present a student in the University Medical College, of this city. His general health has been fairly good, although a naso-pharyngeal catarrh has been present for several years. He has always been a mouth breather. For the past ten years he has been considerably troubled with dandruff.

Present illness: Ever since the patient can remember, his lower lip has been thicker and much more protuberant than normal, and the mucous surface has been marked by a number of circular, pin-head sized openings. Copious amounts of a clear, stringy, gelatinous fluid have been discharged through these dilated orifices, the quantity occasionally being sufficient to glue the lips together at night. Abscess formation has never occurred. For about eight years the outer half of the vermilion border and an area about 1 cm. wide on the adjoining skin, have exhibited evidence of the presence of a mild inflammatory process which was characterized by the development of scaling and crusting, and increased redness of the parts. There has been some burning, with a disagreeable feeling of increased tension at times, but very little itching, and no oozing of serum.

Examination: The patient is a slender, rather fragile looking individual, with anuburn hair, and blue eyes. The hair is quite thin in the frontal region (alopecia pityrodes), and there are traces of seborrheic dermatitis on the face and chest. The nasal passages are almost completely closed, and there is a large mass of adenoid tissue on the posterior wall of the pharynx. The buccal mucosa is dark red in color, and covered with stringy mucus.

The lower lip is greatly thickened, and very prominent. The surface posterior to the mucocutaneous junction is abundantly perforated with oval or circular openings, the size of a millet seed or larger. There are thirty-four of these orifices in all. The thickened walls of the underlying ducts can be plainly felt, and the appended glands are increased in size, and hard and shotty to the touch. The anterior portion of the border is sparsely covered with dry crusts and scales, the edges of the latter being slightly everted. A milky appearance of the mucous membrane, so accurately described by Stelwagon in the histories of his first two cases, is a prominent feature here, and in many respects the lesions bear a striking resemblance to those seen in the second case in my series.

Histopathology: Under cocaine anesthesia, injected subcutaneously, a small piece of tissue was excised from the exfoliating border. The specimen was fixed in alcohol, and mounted in celloidin. Serial sections were cut, and stained with methylene-blue, hematoxylin, hematoxylin-eosin, and Weigert's solution.

The changes observed in both layers of the skin are practically identical with those seen in the case of cheilitis exfoliativa just described. The corneous layer of the epidermis is a trifle thinner (a disparity that is readily explained when one remembers that at times the lip is almost entirely free from scales and crusts), and the elastic tissue is somewhat increased in amount.

The last named difference is probably a result of the conjoint presence of the glandular affection, although it is a well known fact that these fibers are more plentiful in the cutis of some persons than in others, and it may be that the skin of this patient is one of the exceptions.

The essential histological features are the same, however, and in a mixed collection of sections from the two cases it would be almost impossible to separate one from the other.

CASE 2.—S. H., male, married, section foreman, 60. Referred to my associate, Dr. J. P. Kanoky, by Dr. L. A. Todd, of St. Joseph, Mo. I am indebted to Dr. Kanoky for permission to include a description and history of the case in this article.

Family history: Two of the patient's daughters, aged 23 and 26 years, have numerous small openings on the mucous surfaces of their lower lips. The lesions have never given rise to any pain or inconvenience, however, and have received no treatment.

Personal history: The patient is a native of Kentucky, and a resident of Nebraska. His general health has always been excellent. At times it is almost impossible for him to breathe through his nose, and again he is able to breathe through the passages with very little difficulty. He has never had a venereal disease.

Present illness: Since early youth, the patient has noticed numerous small, pin-hole like orifices in the mucous membrane of his lower lip. Occasionally, there has been a very free discharge of mucus, forming a thick, sticky covering over the entire border. No abscesses have ever developed. About fifteen years prior to the time of consultation, the scaly condition became manifest on the anterior half of the border and on the skin near the corner of the mouth. The patient ascribed its onset to frequent exposure to hot, dry winds. Two years ago, following a slight injury received while shaving, an epithelioma developed on the right side of the lip, and it was because of this lesion that advice was sought.

Examination: The patient is a well-built, athletic individual, with grey hair and blue-grey eyes. The scalp is almost entirely bald (alopecia pityrodes), and there are several spots of senile keratosis (seborrheic) on the face. The right nasal passage is almost entirely closed by a spur, and the left is partly occluded by an enlarged turbinate. The buccal mucosa is red and congested, and there is an abundant amount of stringy mucus. The teeth and gums are in relatively good condition. The enlarged glandular openings number thirty-seven, and many of them are of sufficient size to admit the rounded tip of an ordinary silver probe.

The lip is not so thick as in the first case, but the anterior portion of the border, and an adjoining strip below the cutaneous junction, show typically the manifestations of cheilitis exfoliativa. Near the right hand corner of the mouth is a small epithelioma. The lesion is almost wholly confined to the scaly area, and the patient thinks that the margin is advancing forward and downward instead of circumferentially.

CONCLUSIONS

From the findings in these cases, it is evident that cheilitis glandularis apostematosa and cheilitis exfoliativa have absolutely no relationship, either histologically or clinically. The first is characterized by an enormous hypertrophy of the ducts, and usually of the glandular substance also, of the mucous glands of the lip, and is probably congenital in origin, being simply one of the manifestations of an excessive supply of glandular tissue to the nose, pharynx, mouth, and lips.

The second is undoubtedly a chronic, localized form of seborrheic dermatitis. The associated involvement of the tongue and buccal mucous membrane in some instances cannot be explained in the light of our present knowledge, but the last word has yet to be said on the pathology of dermatitis seborrheica, and it may be that our ideas regarding the morbid changes in this most universal of all cutaneous disorders are destined to undergo considerable reconstruction before the chapter is closed.

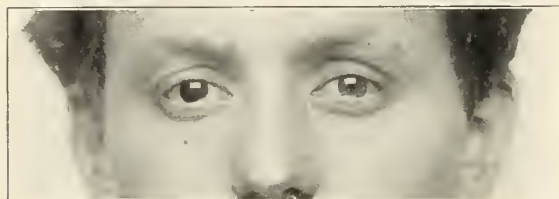
COMPLETE TRAUMATIC ANIRIDIA, WITH INJURY TO THE LENS: RECOVERY WITH USEFUL VISION.*

JOHN GREEN, JR., A.B., M.D.

ST. LOUIS.

I presume that ophthalmic surgeons will agree that the ultimate outcome of penetrating wounds of the globe is a matter of great uncertainty. The gravity of the outlook is, as a rule, much greater when the penetrating instrument has remained wholly or in part within the eye-ball. Even in the case of magnetizable fragments which are promptly localized by the *x*-ray and withdrawn by means of some form of magnet, the end-result often leaves much to be desired. While it is true that many globes have been preserved by the magnet operation, it is equally true that extremely few eyes so injured recover with useful vision, i. e., with 6/40 or better.

The outlook is distinctly better when no part of the penetrating instrument has remained within the globe. The site and extent of the wound, whether incised or lacerated, the special ocular structures injured, whether the vitreous has been penetrated, and, if so, whether any has



Picture taken with patient facing bright light. Note that patient has no tendency to narrow right palpebral aperture indicating entire absence of photophobia in irisless eye.

escaped, are all questions that must be answered before attempting a prognosis. With all data in hand, one's ideas may be turned topsy-turvy by the sudden development of a superficial or deep-seated infection, which rapidly destroys the eye. These unfortunate results have, in my experience, usually occurred in those cases that have sustained a small penetration of the cornea with incarceration of the iris which has been overlooked or regarded as trivial by the patient and his physician. Ophthalmic advice is not sought till several days after the injury, when severe pain marks the development of corneal suppuration or panophthalmitis. The most brilliant results are observed when the penetrating implement does not convey infection and when the eye receives prompt surgical attention. The following case is a good illustration of the remarkably brilliant results that are sometimes observed even when the insult to the ocular tissues is severe.

CASE 1.—L. A. E., age 25, carpenter, came under observation at 9:40 a. m., Nov. 21, 1910.

Ocular history: While engaged in constructing a wooden trough to hold the concrete frame of a modern business structure, which was being erected in the down town district, the patient struck a 16 penny nail a glancing blow, the nail flew off and entered the right eye. Immediately afterwards it dropped to the ground, nine stories below. On examination I found an irregularly T-shaped wound of the cornea, adjoining the lower outer limbus. The vertical arm of the T occupied about the center of the transverse arm and extended downward just to the sclerocorneal margin. The anterior chamber, which was quite free from blood, contained no visible iris tissue save for a few shreds at the nasal margin. Ophthalmoscopic examination revealed the fact that the lens had been penetrated in the lower third; there were a few fine, floating shreds in the anterior portion of the vitreous. The fundus details were faintly visible through the upper portion of the lens. The zonule of Zinn was visible throughout the entire lens periphery except below, where the clouding of the cornea made it impossible to get a view of this portion. Tension was very much diminished, in fact the globe was decidedly soft. Right eye $V = \text{motion of hand at 1.5 meters}$. Left eye, $V = 5/5$ plus. Under local anesthesia, I clipped off the contused edges of the T-shaped wound, evacuated the very small quantity of blood that was to be seen in the anterior chamber, and applied an occlusive dressing. The following day there was some chemosis below, the wound looked perfectly clean, the anterior chamber was restored, and vision was the same as the preceding day. From this time on the patient made an absolutely uninterrupted, uncomplicated and painless recovery.

Treatment consisted simply of saline irrigations and occlusive dressing, with protiodid of mercury, $\frac{1}{8}$ of a grain, three times a day. On January 2 (about six weeks after the injury) I found the lens quite clear centrally, but marked by several peripheral strips of opacity. The vitreous contained a small number of floating shreds. I prescribed spectacles as follows: Right eye, a black disc with a 2 mm. circular opening. Left + 1.5 cylinder axis 90 with which R. $V = 5/10+$; L. $V = 5/5+$. He wore this arrangement for several weeks and found it a help in bright light which was dazzling to the aniridic right eye. Recently, however, he has found that the eye without its iris has perfectly adjusted itself to the new conditions and he is able to work without discomfort in the brightest sunshine. It is, of course, possible that the lenticular opacity may eventually increase, though I have seen no sign of any such process within the past four weeks.

Mayou¹ has recently called attention to the fact that traumatic aniridia may be rather apparent than real, at least in some cases. He has found that occasionally the iris is retracted into the angle of the anterior chamber by the organization of fibrous tissue on its surface. If the iris does not disappear until sometime after the injury, it is practically certain, in Mayou's opinion, that it has been drawn back in the manner described.

Another case of apparent aniridia is the incarceration of the iris which has been swept into a scleral wound by the escaping aqueous or lens. The iris may be bodily carried away in severe injuries by the sudden expulsion of the aqueous and lens, and in a few cases through the forcible expulsion of the aqueous only (without displacement of the lens).

* Read before the Ophthalmic Section, St. Louis Medical Society, March 1, 1911.

1. Mayou: Disappearance of iris following injury (Trans. Ophth. Soc., United Kingdom, xxix, p. 254).

Recovery with preservation of vision is more likely to occur when complete avulsion of the iris has taken place. If fragments of the iris be caught in the wound, a subsequent cyclitis is more likely to occur through inflammation spreading along the track of the iris into the globe. The ingrowth of epithelium along the track of the wound may cause the formation of a fistulous opening. A rare cause of apparent aniridia is retroflexion of the iris, i. e., a doubling back of the iris on the ciliary body. This form is always associated with forward dislocation of the lens. Finally, by reason of the rupture of the pectinate ligament the ciliary body and iris may be dislocated backward to nearly the equator of the globe so that the pupillary margin only reaches forward to the corneosclerotic junction. In this type of injury, therefore, the aniridia is only apparent.

In the case here presented, I believe that the roughened point of the 16-penny nail became engaged in the iris tissue and the latter was forcibly avulsed when the nail dropped out of the eye.

625 Metropolitan Building.

SIX HUNDRED CASES OF FRACTURE OF THE SKULL*

EDMUND A. BABLER, M.D.

ST. LOUIS

Of the 614 cases of fracture of the skull admitted to the surgical department of the City Hospital during the past five years, there were:

	Operated		Not Operated	
	Rec.	Died	Rec.	Died
1. Fracture of the Vault.				
a. Bursting	4	4	100	7
b. Bending	108	31	29	12
2. Fracture of the Base.....	20	45	96	128
3. Gunshot of the Vault.				
a. Penetrating dura.....	0	3	3	17
b. Non-penetrating	4	0	3	0

The cases of depressed and linear fracture of the vault in which the line of fracture extended to the base were included in the list of basal fractures, since it is from implication of that region that their characteristic conditions depend.

SYMPTOMS AND DIAGNOSIS

Experience teaches that the clinical picture following fracture of the skull, e. g., abnormalities of pulse, temperature, pupils, loss of consciousness and other morbid conditions, are not really due to the fracture, but are indicative of intracranial injury. It is thus evident that the diagnosis of fracture of the skull must be made by exploration of the hematoma or laceration, or by palpation. In this connection, I desire to emphasize the fact, as borne out by a study of our 600 cases, that every hematoma of

the scalp should be explored. The contention that such a procedure invites infection is not only erroneous, but indicative of lack of aseptic technique. Aseptic exploration of hematoma of the scalp, in which the character of the violence renders a fracture possible, will be the means of detecting the fracture at a time when proper treatment implies prevention of traumatic epilepsy.

Hemorrhage from the ear is one of the most valuable signs of basal fracture. It was present in 151 of our 289 cases of basal fracture, and in nine of the thirty gunshot cases; seventy-nine of our 151 cases of basal, and the entire nine cases of gunshot fracture died. There were two cases in which a subcutaneous hemorrhage in the mastoid region and one case of subcutaneous hemorrhage in the orbital region, was noted. Hemorrhage from the ear is practically pathognomonic of basal fracture.

Edema over the mastoid was the only early sign in two of our cases. Autopsy showed basal fracture.

Escape of cerebrospinal fluid was noted in twenty of our basal cases. Phelps found a serous discharge in twenty-six of his cases of basal fracture.

The extrusion of brain tissue does not need comment, in so far as diagnosis is concerned. The fact that practically the entire right frontal lobe may be destroyed without causing even temporary functional impairment is known to all. Recently an interesting case of destruction of a large portion of the gray matter in the right Rolandic area was admitted during my service at the City Hospital. The left side of the patient's body was paralyzed at time of admission, but within two weeks after the operation the patient had partially regained use of the paralyzed side. I have frequently been impressed with the amount of brain tissue that can be sacrificed without causing permanent and in many instances even temporary functional disturbance, even though the lesion involve a portion of the motor region.

Phelps has called attention to *localized pain* as a symptom of basal fracture. He admits that it is most likely to be serviceable in the diagnosis of fracture beginning in the occipital fossa. In these cases the pain is quite intense and situated in either the occipital region or over the mastoid process. In a few of our cases of basal fracture without hemorrhage from the ear, the patient complained of a constant, severe pain in the occipital region. In many of our cases, this symptom was a very striking one. I have observed that in quite a few cases of bending fracture, pain localized at the site of fracture is a very prominent symptom. This is especially true in the cases seen a day or more after the accident.

*From the St. Louis City Hospital.

PATHOLOGY

The primary intracranial lesions following head injury are hemorrhage, contusion and laceration, while their sequelæ may be classified as acute and subacute meningeal and parenchymatous inflammation. Abscess or sclerosis is the terminal result of the latter. It is, however, well known that secondary necrosis of the cerebral tissue is not always dependent on inflammation.

Consciousness.—Of 593 cases in which the presence or absence of consciousness was noted, 175 were conscious, nineteen died; 188 of 418 unconscious cases died. In 296 cases of basal fracture, only nine of the 177 fatal cases were conscious at time of admission. Eighty-five of 119 recovery cases of basal fracture were unconscious at time of admission. Of twenty-two cases of penetrating gunshot, fifteen of the nineteen fatal cases were unconscious at time of admission. In a series of 185 cases of depressed fracture of the vault, seventy-six of the 128 recovered cases were conscious on admission. Forty-seven of 105 recovered cases of linear fracture of the vault were conscious; two of seven fatal cases were also conscious on admission. It would, therefore, appear that the conscious case has a slightly better prognosis, although 289 of Phelps' 498 conscious cases died; thirty of 106 partially conscious cases died; and 318 of the 860 unconscious cases died.

Temperature.—It is fairly well agreed that intracranial hemorrhage of itself does not cause elevation of temperature; it reduces the temperature as it reduces the force of the circulation and depresses all vital function. Meningeal contusion tends to increase the temperature, while injury to the brain tissue causes a decided elevation. In 422 of our cases, the temperature was recorded; in 155 cases the temperature was 98 degrees or lower, and fifty-nine of these cases died. In 183 cases, the temperature was between 98 R. and 100 R.; sixty died. In thirty-six cases, the temperature was between 100 + R. and 102 R., inclusive; twenty-three died. Of eight cases with temperature 102 + R. and over, all died. The striking feature is the fact that 60 per cent. of the cases with temperature above 100 R. died. It is also evident that a normal or even slightly subnormal temperature with or without normal pulse-rate is not a guide to the final outcome. Relative to the relation of consciousness and temperature to the nature of the lesion, Phelps says: "The loss of consciousness which immediately succeeds a cephalic injury is always the result of diffuse cerebral contusion; if unconsciousness is preceded by a conscious interval, however brief, or if after restoration of consciousness, its privation soon recurs, it is occasioned by some form of intracranial hemorrhage. If after the lapse of hours consciousness still remains in abeyance, a stationary temperature of but one or two degrees above the normal

standard will indicate a hemorrhage of some profusion without serious cerebral injury; but a higher elevation which constantly increases with possible remissions, will point to a visceral lesion. The cases in which consciousness after brief restoration is again lost permanently or for a lengthened period, have the same relations to temperature as those in which unconsciousness has been uninterrupted." Personally, I have been impressed with the frequency with which a patient with an apparently insignificant hematoma or laceration was admitted with normal temperature and mentality, and yet examination would show a depressed fracture of the vault with more or less injury to the cerebral tissue.

Pulse.—In my experience the pulse at time of admission was of very little assistance in determining the character of the fracture and the presence or absence of intracranial injury unless the latter was accompanied by hemorrhage sufficiently profuse to cause symptoms of compression. In 400 of these cases, the pulse-rate was noted; in fourteen cases of linear fracture of the vault it was between 56 and 70, and of these twelve recovered; in thirty-six it ranged from 70 to 90, and thirty-four of the cases recovered; in twenty-four cases it registered between 90 and 150, and of these twenty-three recovered. Of 110 cases of depressed fracture, in twenty-one the rate was 50 to 70, and twelve cases recovered; forty-one of forty-nine cases with a pulse-rate from 70 to 90 recovered, while thirty-one of forty cases with a rate between 90 and 132 recovered. In 203 cases the patient sustained a basal fracture: in nineteen of fifty-one cases in which the pulse fluctuated between 40 and 70, the patient recovered; thirty-nine of the sixty-four cases with pulse-rate 70 to 90 recovered; of eighty-eight cases with a pulse-rate of 90 to 150, there were sixty deaths. Both of the two cases of gunshot with a pulse-rate of 56 to 70 died; six of the seven cases with a rate of 70 to 90 died, and three of the five with a rate of 90 to 120 died. The observation of Phelps that general contusion accompanied by considerable hemorrhage, usually pial or cortical, a supranormal pulse of 100 or more was so frequently encountered that it afforded a fair presumption of such a complication of lesions, is worthy of consideration. Our study bears out the teaching that in the cases in which the essential lesion is intracranial hemorrhage, the pulse will be *practically* unaccelerated in most of the cases.

Pupils.—In 116 cases of depressed fracture of the skull, the pupils were equal and reacted to light; 105 of the cases recovered. In sixty-two cases of basal fracture the pupils were equal and reacted to light; forty of the cases recovered. Forty of the fifty-six cases with inequality of the pupils died. Phelps found that 35 per cent. of his cases with normal pupils died, while 53 per cent. of his recovered cases had normal pupils. It is well known that the abnormal pupil

signifies intracranial injury. Hutchinson has expressed the opinion that dilatation and fixation of a single pupil denotes a compression of the motor oculi communis nerve by a hemorrhage of the same side.

Intracranial injury is not infrequently followed by some temporary impairment of the vesical and rectal control. Vomiting is frequently noted, and in my opinion it is a very favorable sign when it occurs several hours or more after the receipt of the injury. In fact, it not infrequently precedes a return to consciousness.

Lumbar Puncture.—Every case of head injury in which there is a suspicion of intracranial injury, although exploration of the hematoma or laceration fails to reveal a fracture, requires lumbar puncture. It is true that in a few of the cases of basal fracture the fluid withdrawn will not show blood-cells. In one of my recent cases of basal fracture, in which the eye-grounds appeared free of change and the slight edema over the right mastoid was the prominent early sign, lumbar puncture showed increased, intracranial pressure but absence of blood-cells.

Quenü has found that repeated lumbar puncture alone yields brilliant results in many of these grave cases of basal fracture. I am sorry that the records of our cases do not contain accurate information as to the experience with lumbar puncture. Lumbar puncture is done in all of these cases of head injury admitted to my service at the City Hospital, in which the diagnosis of serious intracranial injury is questionable.

TREATMENT

It is conceded that cases of linear fracture of the vault without symptoms pointing to serious intracranial injury should be kept under close observation, while all cases of bending fracture of the vault should be subjected to operation even though symptoms of intracranial injury be absent. If there is the least doubt in the surgeon's mind as to the viability of the elevated fragments, or the possibility that the latter will press unduly on the dura, it is imperative that these fragments of bone be removed. In all gunshot wounds of the vault the depressed fragments of the inner table should be removed. Punctured wounds are explored if intracranial symptoms appear.

Ransohoff (*Ann. of Surg.*, June, 1910) is of the opinion that cases of basal fracture which seemingly not severe in the beginning grow progressively or suddenly worse, showing signs of increased intracranial pressure, decompressive operation may save a considerable proportion of them. Since most cases involve the anterior or the middle fossa, subtemporal trephining is doubtless the best procedure oftenest indicated. Subtentorial operation is indicated when the posterior fossa is involved. Kirchner (*South-western Medical Journal*, February, 1909), favors operation with drainage of the middle fossa in

cases of basal fracture with distinct signs of intracranial injury as evidenced by symptoms of hemorrhage and pressure.

Until recently, basal fractures were regarded as non-operative. In my opinion, many lives will be saved by lumbar puncture and decompression, provided the operation is not postponed until too late. Several of our cases of basal fracture with signs of serious intracranial injury were successfully operated on. Drainage by means of rubber tissue has been found very satisfactory. Laceration of the longitudinal sinus causes profuse hemorrhage; the latter is readily controlled by a gauze tampon. Rupture of the lateral sinus is of very grave moment.

PELLAGRA *

A. J. VANCE, M.D.,
HARRISON, ARK.

Pellagra is derived from Latin *pellis* and Greek *agra*, meaning "skin seizure," or as translated by some, "rough skin." Defined as an endemic skin and spinal disease of southern Europe said to be caused by damaged or diseased maize, but dependent also on bad hygienic conditions, lack of proper food and exposure to the sun. It is marked by exfoliation of the epidermis, weakness and debility, digestive disturbance, spinal pain, convulsions, melancholia and idiocy.

The first report of the disease was of a case in Spain in 1735 about forty years after the introduction of Indian corn. In 1750 it broke out simultaneously in several districts in Italy and in a few years it had spread throughout Lombardy. It was called Lombardian leprosy and many cases have since been diagnosed leprosy. It began to invade other districts and in 1810 it traveled southward and at the same time became more prevalent throughout Lombardy and contiguous districts.

Frapolli of Milan in 1771 was the first to describe the disease and to call it pellagra. He declared it was ancient, having been observed as early as 1578 since which time Italy has been a hotbed for it. In 1879 there were reported 97,855 cases; in 1881, 104,067 cases; in 1899, 72,603 cases; in 1884 it was estimated that there were 10,000 pellagrins in hospitals and insane asylums. In 1905 there were reported 55,029 with 2,359 deaths; about the same number of cases in 1907, but only 376 deaths, a reduction of from forty-three per thousand to seven per thousand in two years.

History does not show, so far as I can ascertain, why this great reduction in mortality. It is decreasing in intensity, at the same time it is increasing in area, developing in parts of Italy previously free from it.

* Read at the annual meeting of the Medical Association of the Southwest, Wichita, Kansas, 1911.

Nearly the whole of southern Europe seems to be fertile soil, but it seems to prevail with greater intensity in Italy, among the peasantry, except in southern Italy which seems to be exempt.

The first reported case in Roumania was in 1810. In 1859 there were 4,500 cases; in 1885, 10,626; in 1886, 19,797; in 1898, 21,272; in 1906, 30,000; in 1907, 40,000.

France's first reported case was in 1818. One French physician reported 200 cases out of a population of 6,000, in the Landes district.

The first reported case in Africa was in 1847, in Egypt in 1893, and since the latter date in Austria, England, Asia Minor, Servia, Bulgaria, India, West Indies, Barbadoes, southern Mexico, several South American countries, and very recently in the United States of America by officers in asylums in South Carolina and Alabama.

Prior to these reports in 1907 there had been only four cases reported in the United States.

At the annual meeting of American asylum physicians held in Washington, D. C., in 1864, Dr. Gray of New York and Dr. Tyler of Massachusetts each reported a case of probable pellagra with mental symptoms. Harris of Georgia and Sherwell of Chicago each reported a case in 1902.

Dr. C. F. Williams, secretary of the South Carolina State Board of Health last year sent out 164 inquiries in an effort to gather statistics on pellagra, and from twenty-two replies, he received reports of 1,000 cases scattered throughout thirteen states, 90 per cent. being reported from Georgia, Alabama and South Carolina.

A few cases have recently been observed in New York, Pennsylvania, Kansas, Illinois, Arkansas, Texas, Porto Rico, and the Panama Canal Zone.

Last November I had a case in practice; parenthetically, this fact accounts for this ancient history and tedious statistics being imposed on this society.

Dr. C. H. Lavinder, passed assistant surgeon of the Public Health and Marine-Hospital Service, in 1909 made an estimate of 5,000 cases in the United States. Some of the reports from Georgia and South Carolina suggest that the disease has probably existed twenty to thirty years.

Marzari was the first to call attention in 1810 to the relationship between the use of corn and pellagra. He claimed the poor quality of the corn lacked sufficient gluten to make good food and was, therefore, the cause of pellagra.

Vincenzo Sette in 1826 asserted the main cause of pellagra to be a fungus growth on the corn, producing acid decomposition of the oils in the corn.

As early as 1776 an ordinance was passed in Venice prohibiting the sale or exchange of corn having a bad taste or odor. Nothing further was done to check the disease until 1845 when Balladini demonstrated that pellagra was caused by damaged corn used for food.

In Italy it is attributed especially to the use of corn grown in situations which do not permit the corn to come to full maturity.

Peasants live largely on "palenta" or corn meal mush. There is nothing to indicate that pellagra is caused by corn *per se* but by corn not fully matured and stored in damp places and allowed to mold.

In 1856 pellagra became epidemic in the Island of Corfu, about the time the peasants commenced to grow grapes instead of corn, importing their corn from Roumania where inferior grades of corn were grown and where pellagra had been prevalent for twenty-two years.

It is claimed that the cause of pellagra in our southern states is the use of imported corn. Cotton is grown largely and corn is imported. Competition is so strong that inferior grades of corn are imported and sold for food. The etiology of pellagra was discussed during a two days' session of the conference on pellagra in Columbia, S. C., last November. Some claimed it was caused from damaged or diseased corn. One physician suggested the cause to be corn and something in the corn. Others reported cases that could not be in any way attributed to corn. At the close of the conference, the following resolutions were unanimously adopted:

Resolved, That this conference recognizes the wide-spread existence of pellagra in the United States and urges on the national government the necessity of bringing its powerful resources to bear on the vital question of its cause, prevention and control.

Resolved, That while sound corn is in no way connected with pellagra, evidence of the relation between the use of spoiled corn and the prevalence of pellagra seems so apparent that we advise continual and systematic study of the subject and in the meantime, we commend to the corn growers the great importance of fully maturing corn on the stalk before cutting same.

It is evident from the language of the resolutions that there was a difference of opinion as to the etiology. Italy has decided the etiology and has passed stringent laws which provide for free distribution of salt and prohibition of sale of spoiled corn.

There is a difference of opinion as to whether pellagra is contagious or infectious. It was discussed freely at the South Carolina conference but no decision was reached. It is probably not contagious. There is no history of quarantine or isolation measures adopted in Italy where they have had more experience than any other country, but all their efforts to eradicate it have been in the direction of supplying the peasants with good corn and in teaching them the art of agriculture, especially urging them to use corn which has fully matured.

With the limited experience of physicians in the United States, the prognosis is considered

grave in all cases as to ultimate recovery. Statistics are very meager and very unsatisfactory, based altogether on asylum cases which give a mortality of 67 per cent.

In Italy in 1883 and 1884 the average mortality was 13 per cent.; in 1905, 4.3 per cent; in 1907, 0.7 per cent. Ten per cent. became insane and these rarely ever recover.

It is essentially a chronic condition. In Italy it is said some pellagrins live 25 years. Dr. Babcock of South Carolina reports cases of eight to twelve years' standing who were still in good physical condition. It is liable to recur months after recovery seems to be complete, and death frequently follows the second or third attack. In this country nearly all the deaths have occurred within a few weeks or months.

Much credit is due Dr. Charles Wardell Stiles for his investigations and expositions of the hookworm and its menace to the people of the south, but the hookworm with all its horrors is not to be compared to the dreadful results of pellagra. Its victims who do not succumb at once are liable to repeated attacks, or to become incurably insane.

REPORT OF CASE

Lady, white, age 52, consulted me Nov. 28, 1909. About four weeks previously a briar stuck in her left thumb. In a few days a small abscess formed. November 21 glands in axilla began to swell; a surgical dressing was put on the thumb which was suppurating slightly and axillary gland painted with tr. iodine. Dark red spots on forehead behind each ear and on dorsal surface of each hand and wrist. Diagnosis of pellagra was not made at this examination. In about ten days nausea, but no vomiting, excessive flow of saliva, general stomatitis, cardinal tongue; patient complained of burning and smarting of hands and very painful to the touch and when allowed to hang down would feel as if they would burst; patient also very nervous during the day and slight delirium at night; hands tremulous, knee jerk slightly exaggerated.

Patient says she never ate corn bread. At expiration of five weeks no traces of disease left except a slight discoloration of skin on back of fingers and hands.

In the preparation of this paper I have consulted all authorities available which were very few. I claim no credit for presenting anything new. My object is to warn members of this society who are not already on the alert to prepare for war in time of peace for this formidable foe must be met by many of us sooner or later.

REPORT OF A CASE OF NASAL POLYPI *

R. S. MAGEE, M.D.

TOPEKA, KANSAS

The case in question came to the A. T. & S. F. Hospital May 10, 1910, suffering from an abscess of the antrum of Highmore on the left side. An operation was made by Dr. John D. Freeman, surgeon in charge of A. T. & S. F. Hospital, Topeka, and the cavity drained. During this

time patient complained of not being able to breathe through his nose and said he had not done so for the past twenty-five years. Patient, male, 45 years of age.

Waiting until the opening which had been made in the cheek had closed, I prepared him for operation for the removal of the polypi. Gave him a general anesthetic and attempted to use the Bosworth snare, but was unsuccessful as the nasal cavity was too full to admit the wire. I then used the Andrews chisel, cutting away the middle turbinate on the right side completely. At this juncture patient became cyanosed and began to choke and breathe with difficulty. Turning him over on his side and lowering his head, he gave a cough and with this threw out a large bunch of polypoid material *en masse*, which weighed 1½ ounces.

I then passed my finger through the right nostril and also in the left nostril and in this side found nothing—then made sure the right middle turbinate was removed, for from this I had concluded that the polypi had sprung. The pressure from the mass in the right side had crowded over the septum closing up the left side. Because of this pressure, I think, came the trouble in the antrum. In the removal of nasal polypi I believe it does but little good simply to remove the polypi by the use of the snare loop, as they will return in a short time, necessitating a second removal or more. But to be efficient and to insure against a return, remove the entire turbinate from which they are growing or at least a good sized portion of the turbinate.

Nasal polypi are pedunculated myxomata, growing from the nasal mucous membrane covering the turbinated bones, from the frontal sinus or from the antrum. They may be single or multiple and originate as a sessile node, which soon becomes pedunculated and later becomes distinctly lobulated, so that a group of polypi may seem to arise from a common pedicle.

Nasal polypi usually have a smooth covering of mucous membrane and are yellowish or pinkish in color—soft in texture and rarely vascular. They oftentimes descend in the interior of the nose so as to be visible from the anterior nares, or they may descend posteriorly through the posterior nares into the throat—which was true of this one—easily seen from in front and in the throat.

Some pathologists take the position that the ordinary nasal polypi are not myxomatous as usually described and considered, but are fibrous tumors in an edematous condition and that true myxomata are rare. I am not a believer in the theory that their removal following excision points to a possibility of their being a tumor of a sarcomatous nature.

The generally accepted theory is that a polypus is a form of circumscribed hypertrophy of the mucous membrane. The gelatinous appearance of the tumor is due to edema.

* Read at the annual meeting of the Medical Association of the Southwest, Wichita, Kan., 1910.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

MAY, 1911

EDITORIALS

KANSAS CITY MEETING OF THE ASSOCIATION

The fifty-fourth annual meeting will convene at Kansas City May 16, 17 and 18. The headquarters will be at the Coates House, one of the largest and best appointed hotels in the western metropolis of the state.

The sessions of the House of Delegates and the Medical and Surgical Sections will be held in the parlors of the hotel; the general sessions and public meetings will be in the Casino.

The Committee on Scientific Work has arranged a most attractive program for this session of the Association and the Kansas City physicians have planned some entertaining features for the pleasure of the members. By referring to the program, published on another page in this issue, members will find that every day is well filled with features of great interest to the whole association, there being sessions for morning, afternoon and night of each day of the meeting.

After adjournment, clinics will be held in the hospitals of Kansas City for the benefit of those who may desire to remain over for a few days. The Kansas City General Hospital is one of the newest and finest in the country and should be visited; the park and boulevard system of Kansas City is very extensive and noted for its scenic beauty.

The present outlook for a large attendance is very encouraging and the interest manifested is most gratifying. The program contains perhaps the most interesting combination of papers that has ever been prepared for any annual session of the Association. All these things should attract a very large attendance at the Kansas City meeting of the Association.

REDUCED RATES FOR KANSAS CITY MEETING

The railroads have agreed to allow a reduction in the round-trip rate to Kansas City. Members must ask ticket agents for a certificate at the time of purchasing the going ticket. This certificate must be deposited with the secretary of

the Association at the opening of the meeting for the signature of the joint agent of the railroads at Kansas City. A fee of 25 cents will be charged by the joint agent for each certificate. After these certificates have been signed they will be returned to the members and on presentation at the ticket office at Kansas City a return ticket will be sold at three-fifths of the regular fare.

Do not forget to ask the railroad agent for a certificate when purchasing your tickets to Kansas City. The rate, of course, is granted only for the dates of our meeting but will be good for returning until May 22.

THE EXHIBITS

The exhibits at the Kansas City meeting will be shown in the writing-room of the Coates House. The management of the hotel has very generously allowed us the use of this room for exhibit purposes. The number of exhibitors will be limited and only those firms who conduct their business in a proper and ethical manner will be permitted to occupy space in the exhibit room. The following firms have been assigned space:

Hettinger Brothers of Kansas City, surgical instruments; Mountain Valley Water Company of Hot Springs, mineral water; Horlick's Malted Milk Company, malted milk; C. V. Mosby Book Company, St. Louis, medical books; L. S. Matthews Company, St. Louis, medical books; Carnes Artificial Limb Company, Kansas City; Merry Optical Company, Kansas City.

Members are cordially invited to visit the exhibit room during the meeting and interest themselves in the articles displayed by the exhibitors and acquaint themselves with the men who furnish the books, appliances and other articles required in their daily practice.

The Missouri Association for the Relief and Control of Tuberculosis will exhibit pictures and drawings showing how the Association is educating the public in means to prevent and control the spread of tuberculosis.

SHAPING PUBLIC OPINION

During the past month several events occurred which point merrily to the rapid change of public opinion in regard to the practice of medicine and the responsibility of the government in matters affecting the health of the people. Two of these events are of national importance, one of local significance; but all tending to guide public opinion aright. We refer to the article in the *Outlook* by ex-President Roosevelt; to the trial in the United States Supreme Court of a cancer cure quack from Kansas City; and to the medical school of Washington University.

Concerning Colonel Roosevelt's article we publish on another page the comment in the *Journal* of the A. M. A. on patent medicines and abortionists' advertisements. The cancer cure case is that of a man named Johnson who conducted a mail order business at Kansas City and shipped some of his goods in interstate commerce. The labels on the packages stated that the preparation would cure cancer. Johnson was arrested by the Federal authorities, charged with violating the United States Pure Food and Drugs Act and the case has finally reached the Supreme Court of the United States. Johnson makes his fight on the ground that the law places no restrictions on the expressions of the manufacturer of a medicine concerning the therapeutic value of the preparation but refers only to the composition of the medicine. The statement on the label, that the medicine would cure cancer, is of course untrue as there is no known cure for cancer. In the argument of the case before the Supreme Court, Solicitor-General Lehmann took the position that the Food and Drugs Act was intended to protect the people against fraud concerning the therapeutic value of a medicine as much as against fraud concerning its composition. He was interrupted in his speech by Justice Lurton who asked whether such an interpretation of the law "would not break up the patent medicine business." Mr. Lehmann replied: "It probably would, and I know of nothing within the scope of Congress that would be more beneficial." We can do no better than quote the comment of the *Journal* of the A. M. A. on this colloquy. The *Journal* says:

The question by the justice and the answer by the solicitor-general are worth pondering over. Men who have reached the positions held by Solicitor-General Lehmann and Justice Lurton cannot, truthfully, be accused of being fanatics or prone to making radical statements. On the contrary they are likely to be, if anything, ultra-conservative. Nevertheless, one of these men plainly intimates and the other frankly says that the patent medicine business is based on fraud and deceit. No other interpretation of the question and answer seems possible. Justice Lurton asks whether if the patent medicine makers have to tell the truth about their products, it would not destroy their business; Solicitor-General Lehmann says that it would.

The important local event to which we refer occurred in St. Louis when several of the professors in the medical school of Washington University addressed the Commercial Club of St. Louis on the subject, "Modern Medicine and Medical Education."

To the medical mind not prepared to grasp the significance of such an innovation as this there springs immediately the thought, "Why address a body of commercial men on such a subject? That topic should be discussed only in medical circles." A very little reflection, however, will convince one that this subject could not be presented to a more important body if

the objects for which the medical profession is putting forth such strenuous efforts are to be realized.

In order to establish a high standard—the highest standard—in the practice of medicine it is imperative that the qualifications of the medical graduate shall be of a higher grade than has ever been required in the past: one of the most important of these qualifications being high moral character of the prospective matriculant, since the morally deficient practitioner is far more harmful to the community than the less brilliant but honest doctor. An essential preliminary to the accomplishment of this uplift in the character of medical graduates is the enactment of statutes clearly defining the qualifications of persons who seek to enter the profession, yet such statutes can never be passed until the people have been thoroughly informed with the necessity of creating such laws. The struggles of the medical profession to obtain needed legislation in the past—the very recent past—have demonstrated how utterly futile are such attempts without previously informing the people with a knowledge of the purposes of the proposed measures toward the improvement of the health of the people and the elimination as far as possible of physical and mental imperfections not only of the present generation but of future generations.

In our opinion the medical school of Washington University pursued a most wise course when it accepted the opportunity of addressing the members of the Commercial Club of St. Louis and wondrously strengthened the cause of higher medical education, for out of this body will emanate the most important influences that it is possible to arouse in shaping public opinion. We trust there may be more frequent meetings of this kind; a closer alliance and a more intimate exchange of thought between medical and non-medical workers for the conservation and protection of the health of the people.

LOS ANGELES MEETING OF THE A. M. A.

Members intending to go to Los Angeles for the meeting of the American Medical Association should make their plans to join the Missouri party. At present reservations have been made to fill two cars at St. Louis and the same number at Kansas City are well filled with physicians and their families. At Kansas City the cars from St. Louis will be attached to others made up from St. Joseph and Kansas City and a special train of Missouri doctors run to Los Angeles. The route will be over the Santa Fé Railroad with a side trip to the Grand Canyon of Arizona; twenty-eight hours will be spent at this point thus giving the members ample opportunity to visit the principal points of interest in this wonder of Nature. At Albuquerque the party will

be shown the Fred Harvey collection of Indian relics and at Laguna will visit the Indian village.

This is an unusual opportunity for members to visit the great West and view the remarkable scenery of that vast country at the least possible cost for transportation and accommodations. The profession of Los Angeles is preparing an elaborate round of entertainments for the meeting and the indications all point to an unusually large number at this annual session.

A NEW OWEN BILL

Senator Owen has introduced a new bill for the establishment of a department of health. The objections raised against the old bill have been entirely eliminated and the powers and duties of the department so clearly defined in the new bill that it is difficult to understand what objections can be raised against it. The enemies to progress in medicine will of course find some pretext or other for fighting the bill, especially those persons who are opposed to any movement that will curtail the sale of patent medicines or tend to restrict the medical practices of religious and semi-religious sects, including the long list of imposters who thrive on the mental and physical infirmities of man. We believe, however, the demand for this important department in our government is so insistent and the need of it so great and so apparent that Congress cannot long defer its creation. The new bill is printed on another page. It should be carefully studied by all members, especially county society secretaries, so that they may be ready to explain its benefits to inquiring laymen and refute unjust attacks on it as well as correct any misapprehension concerning its provisions.

THE MISSOURI ASSOCIATION FOR THE RELIEF AND CONTROL OF TUBERCULOSIS

This association was formed in 1907 for the purpose of organizing local antituberculosis societies throughout the state and educating the public in the prevention of tuberculosis. There are now three very active societies in the state.

A great deal of antituberculosis work has been done by the St. Louis Antituberculosis Society, Dr. Morris Tuholske, secretary; the Jackson County Antituberculosis Society, Mrs. Henry O'Haus, secretary, Kansas City; and the Buchanan County Antituberculosis Society, Dr. Oliver C. Gebhardt, secretary, St. Joseph.

Some of the smaller societies formed, tended in time to become listless and inactive, and the idea of a special exhibit by means of a car containing an exhibit of pictures and pathologic specimens explaining "How Tuberculosis is Communicated, Prevented, and Cured" was advocated.

Accordingly, with the assistance of Mr. C. R. Gray, senior vice-president of the Frisco Railroad; Mr. Alex H. Hilton, general passenger agent of the Frisco Railway; Mr. A. A. Allen, vice-president of the M. K. & T.; Mr. W. A. Durham, assistant general manager of the M. K. & T.; and the officers of the Cotton Belt and Missouri Pacific Railroads, a car was secured in which to carry the exhibit, and transportation was given for the lecturer and people aiding in the campaign. Dr. James Stewart of St. Louis was lecturer, assisted by Dr. Herman E. Pearse a number of times.

To carry on this work, donations were made by Anheuser-Busch Brewing Association, \$1,000; Mr. N. O. Nelson of St. Louis, \$100; Mrs. C. C. Culver of St. Louis, \$100; and a number of smaller donations from prominent business men of St. Louis. The campaign against tuberculosis was carried on for two months by this car in 1910. This Association is endeavoring to continue the campaign by giving lectures illustrated by stereopticon pictures showing how tuberculosis can be fought.

An exhibit of pictures will be shown in Kansas City May 16-18 in the hall of the Casino during the annual meeting of the Missouri State Medical Association. A stereopticon lecture will be given on the evening of May 18; also addresses by Governor Hadley and some of the prominent doctors who have so generously devoted their time to the antituberculosis movement.

"APPLIED ETHICS IN JOURNALISM"

Under the above title, Theodore Roosevelt in the *Outlook* for April 15 makes some interesting comments regarding the "patent medicine" evil in its relation to the newspapers. After touching briefly on the fraud and cruelty connected with fake financial advertising, Mr. Roosevelt says:

The patent medicine advertising represents as great an evil We hear much of the influence exercised by great corporations on the press, and unquestionably this influence has been and is very serious. Yet it cannot be greater than the evil influence exercised by the backers of objectionable medical and financial advertisements when they spend between thirty and forty millions a year in the daily newspaper press.

After thus speaking of the matter in the abstract, Mr. Roosevelt, as is his wont, comes down to the concrete by calling attention to some of the reasons why this form of fraud on the part of the newspapers is not more often fought. The *New York Herald* until 1907 carried without let or hindrance, in what was called the "Personal Columns," but which should have been designated "Abortionist Columns," advertisements that were both criminal and obscene. In that year, however, the Medical Society of the

County of New York found a United States district attorney with sufficient courage to attack this cesspool of filth with the result that a verdict was secured against the proprietor of the *Herald* and he was forced to pay a fine of \$25,000. Of the attitude taken by other newspapers regarding this case, Mr. Roosevelt says:

In this case, by the way, many of the newspapers which are ordinarily of reasonable virtue so hid the facts as to prevent any effective understanding by the public of the real reason for the animosity very naturally shown by Mr. Bennett [proprietor of the *Herald*] through his papers ever since toward all the public officials who were in any way connected with bringing him to justice for his crime.

It is also worth while to call attention, at this time, to the fact that the *Herald*, ever since the "Personal Column" episode, has done its best to vilify and blackguard the medical profession, this, presumably, because its proprietor resents not only the loss of actual cash for payment of the fine, but also the still greater loss of revenue from the abortion advertisers whose "copy" became unacceptable in the eyes of the United States post-office authorities. The *Herald* was one of the first, if indeed it was not the first, of the New York papers to espouse the cause of the "patent medicine" interests' latest organization for fighting the American Medical Association—the National League for Medical Freedom.

Our ex-president also calls attention to the appalling number of "patent medicine" and quack advertisements that appear in the New York *World* and in the "World Almanac" for 1911 and then says:

A peculiarly objectionable feature of these medical advertisements, exactly as with the financial advertisements, is that it is the poorest class, the most helpless class, of people that are most hurt by them. I believe that legislation could be framed to forbid such advertisements. In default of such legislation there is at least need that we should discriminate in the sharpest way between newspapers which war against this evil and newspapers which encourage it.

On the other hand, Mr. Roosevelt has expressed the greatest admiration for publications, such as *Collier's Weekly*, which have rendered the public a great service by exposing the viciousness and fraudulence of quackery and the "patent medicine" business. His excellent editorial closes as follows:

We owe hearty respect to the public servant who, like ex-District Attorney Stimson, fearlessly does his duty in bringing to justice a great newspaper that goes wrong, although he knows that his action will be of harm to himself personally; and we are bound to pay a tribute of deserved respect to a paper like *Collier's* when, in a matter so vital to the public well-being, it wages so fearless, aggressive and efficient a fight for honesty and decency.

—*Jour. Am. Med. Assn.*

CORRESPONDENCE

NEW ORLEANS, March 31, 1911.

To the Editor:—I am very much interested in compiling the clinical reports and results of operations on aneurisms by the intrasaccular method (endoaneurismorrhaphy), which have been performed by the surgeons of this country, and I am trying to reach those who have not yet communicated their results to me and who have not published their experiences with this method. I am steadily receiving reports from various operators at home and abroad, but I fear that many who have operated have failed to write to me, possibly believing that I have ceased to collect more observations since the publication of my last list at the Chicago meeting of the A. M. A. in June, 1908. (See *Journal* of the A. M. A., Nov. 14, 1908, li, 1667-1671, and also my article on Aneurism, vol. v. Keen's Surgery.)

In order to reach as many operators as possible, I have thought of addressing each one of the secretaries of the state medical societies with the request that the enclosed notice be posted in some conspicuous place during the meeting so that surgeons who have operated by this method may learn of my great interest in their experiences and my desire to obtain their results.

Would it be too much of a trespass on your time and indulgence to ask you to read to the meeting and put up the accompanying notice in your meeting hall? If you can conveniently do this you will not only confer a personal favor but you will assist me very materially in my efforts to secure the most valuable data needed to complete a research on this important subject.

Thanking you in anticipation of your courtesy and kind consideration I remain, dear doctor,

Yours very truly,

R. MATAS.

The notice follows:

Members of this society and others who may have had personal experience in the operative treatment of aneurism by the intrasaccular method of suture (endoaneurismorrhaphy, also known as the "Matas operation"), will confer a favor by notifying the secretary, or by communicating their experience directly to Dr. R. Matas, 2255 St. Charles Avenue, New Orleans, La.

MISCELLANY

NEW OWEN BILL FOR THE ESTABLISHMENT OF A DEPARTMENT OF PUBLIC HEALTH

Mr. Owen has introduced the following bill, Senate Bill 1, as a substitute for Senate Bill 6049, introduced by him at the last session of Congress. The bill follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That there be at the seat of government an executive department known as the Department of Health, and a Director of Health, who shall be the head thereof; and the provisions of title four of the Revised Statutes, including all amendments thereto, are hereby made applicable to said department. The Director of Health shall be appointed by the President, by and with the advice and consent of the Senate, at a salary of dollars per annum and with tenure of office like that of the heads of the other executive departments. And said director shall cause a seal to be made for the Department of Health, of such device as the President approves, and judicial notice shall be taken of said seal.

SEC. 2. That there be in the Department of Health an assistant to the Director of Health, designated and known as the Commissioner of Health, who shall be a skilled sanitarian, appointed by the President, by and with the advice and consent of the Senate, who shall serve at the pleasure of the President, and who shall receive a salary of dollars per annum. The Commissioner of Health shall perform such duties as are required by law and such as are prescribed by the Director of Health. There shall be also a chief clerk, a disbursing clerk, and such other employees as Congress may from time to time authorize. The Auditor for the State and Other Departments shall receive and examine all accounts of moneys paid in and of moneys expended on account of the Department of Health, and shall certify the balance arising thereon to the Division of Bookkeeping and Warrants of the Treasury Department, and forthwith send a copy of each such certificate to the Director of Health.

SEC. 3. That it be the province and duty of the Department of Health to foster and promote all matters pertaining to the conservation and improvement of the public health and to collect and disseminate information relating thereto: *Provided*, That this Act shall not be construed as attempting to authorize the Department of Health to exercise or attempt to exercise, without express invitation from the chief executive or other proper authority of the State, any function belonging exclusively to such State, or to enter any premises in any State without the consent of the owner or occupant thereof; but the Director of Health, upon request of the chief executive or other proper authority of any State, Territory, the District of Columbia, or any insular possession, may detail for limited periods an officer or officers, employee or employees, from the Department of Health to assist the health authorities of such State, Territory, District, or insular possession in protecting and promoting the health of the people of such jurisdiction: *And provided further*, That the Department of Health shall recognize no so-called school or system of medicine.

SEC. 4. That to the Department of Health are hereby transferred the following bureaus, divisions, and other branches of the Government, and all that pertains to them, and they and each of them shall remain under the supervision and direction of the Director of Health until otherwise directed by law, namely:

(a) From the Department of the Treasury is transferred the Public Health and Marine-Hospital Service.

(b) From the Department of Agriculture is transferred that part of the Bureau of Chemistry charged with the investigation of the adulteration of foods, drugs, and liquors, and with the execution and enforcement of the Act of Congress entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes," approved June thirtieth, nineteen hundred and six.

(c) From the Department of Commerce and Labor is transferred the Division of Vital Statistics, Bureau of the Census.

And the President is hereby authorized to transfer to the Department of Health at any time either the whole or any part, as to him may seem best, of any bureau, division, or other branch of the Government engaged in work pertaining to the public health, except the Medical Department of the Army and the Bureau of Medicine and Surgery of the Navy.

And each and every function, authority, power, duty, and jurisdiction, of whatsoever character it may be, vested at the time of any transfer aforesaid in the head of the executive department from which such bureau, division, or other branch of the Government is transferred, shall, to the extent to which such function, authority, power, duty, or jurisdiction pertains to such bureau, division, or other branch of the Government, immediately upon such transfer become vested and thereafter remain vested in the Director of Health.

All land, buildings, furniture, apparatus, equipment, and property of whatsoever description, and all official records and papers, in the custody of any executive department from which any bureau, division, or other branch of the Government is transferred as aforesaid and pertaining to the business of such transferred bureau, division, or other branch of the Government, shall at the time of such transfer, or as soon thereafter as practicable, and in so far as such action can be taken without hindering the work of the executive department from which such transfer is made, be given over into the custody of the Department of Health. And all unexpended balances of appropriations available at the time of such transfer for the use of any such transferred bureau, division, or other branch of the Government, or which may become available thereafter, shall be and remain available, in similar manner and to the same extent as if no transfer had been made.

SEC. 5. That within the Department of Health there shall be the following bureaus:

(a) Bureau of Sanitary Research; (b) Bureau of Child Hygiene; (c) Bureau of Vital Statistics and Publications; (d) Bureau of Foods and Drugs; (e) Bureau of Quarantine; (f) Bureau of Sanitary Engineering; (g) Bureau of Government Hospitals; (h) Bureau of Personnel and Accounts. And the Director of Health is hereby authorized to arrange and rearrange from time to time, with the approval of the President, the functions, duties, personnel, papers, records, and property, and the work, resources, and equipment generally, coming into the jurisdiction and control of the Department of Health by the operation of this Act, so as most efficiently and economically to organize and maintain the several bureaus herein named and such divisions and offices thereof as to said director seems proper; but in arranging and rearranging the personnel, the rank, pay, and allowances of the officers of the Public Health and Marine-Hospital Service commissioned at the time of the transfer of that service to the Department of Health shall not, by reason of anything in this Act contained, be diminished. And the Director of Health may call upon the heads of other executive departments for information in their possession whenever such information is needed for the efficient and economical working of the Department of Health.

SEC. 6. That the President is hereby authorized to detail officers and employees from any of the several executive departments of the Government for duty under the Director of Health when so requested by said director, and to detail officers and employees in the service of the Department of Health to any of the other executive departments upon request of the head of such department, provided such detail can be made without prejudice to the public service, to carry into effect the purpose and intent of this Act; but officers and employees so detailed shall receive no additional

compensation, but shall be paid such actual and necessary expenses as they incur in the discharge of their duties.

SEC. 7. That the Director of Health may, in his discretion and with the approval of the President, appoint an advisory board of not more than seven members, to confer with him upon his request, from time to time as he deems necessary, concerning the work of the Department of Health and the health of the people. The members of said board shall be selected because of their special knowledge of matters relating to the public health, and each shall hold office for a term of seven years or until his successor is appointed, except that the appointments first made, and appointments thereafter made to fill unexpired terms and terms of members who have held over beyond the periods of their original appointments, shall be made so that not more than one member shall retire during any one fiscal year. No member of any such advisory board shall receive any compensation for his services, but each shall be paid all actual expenses necessarily incurred in the discharge of his duties. And from and after the passage of this Act the advisory board for the Hygienic Laboratory created by section five of an Act entitled "An Act to increase the efficiency and change the name of the United States Marine-Hospital Service," approved July first, nineteen hundred and two, be, and the same hereby is, abolished.

SEC. 8. That the Director of Health may, whenever in his judgment public interests would be promoted by so doing, invite the duly constituted health authorities of all or of any of the States, Territories, the District of Columbia, and insular possessions as to him may seem advisable, each to send one delegate to confer with him or his duly appointed representative or representatives and with each other, at such time and place as he may designate, concerning any particular matter or matters relating to the public health; and it shall be the duty of the Director of Health, upon the written application of the duly constituted health authorities of not less than five States, Territories, the District of Columbia, or insular possessions, stating the particular matter or matters which it is desired to consider, to appoint a time and place, and to call a conference of the health authorities of the States, Territories, the District of Columbia, and insular possessions that united in the request therefor, and personally or through his duly appointed representative or representatives to be present at such conference; but every State, Territory, the District of Columbia, and insular possession shall be notified of every conference, and if practicable be afforded an opportunity of being present and participating in its proceedings. And from and after the passage of this Act annual and other conferences of State and Territorial boards of health, quarantine authorities, and State health officers, provided for by section seven of an Act entitled "An Act to increase the efficiency and change the name of the United States Marine-Hospital Service," approved July first, nineteen hundred and two, be, and the same are hereby, abolished.

SEC. 9. That, except as expressly provided in this Act, nothing herein contained shall be construed as limiting or abrogating any function, right, or duty imposed by law upon any existing bureau, division, or other branch of the Government; but such bureaus, divisions, and other branches of the Government as are by this Act or by authority thereof transferred to the Department of Health shall continue, under direction of the Director of Health, to have such functions, duties, and rights as they have at the time of such transfer; and in the case of such bureaus, divisions, and other agencies of the Government as are transferred in part only, the part not transferred shall continue to have and to exercise all such functions, duties,

and rights, except such as specifically relate to the part transferred to the Department of Health, in the same manner and to the same extent as if no such transfer had been made.

SEC. 10. That the Director of Health shall annually submit to Congress a report in writing showing the operations of the Department of Health during the last preceding fiscal year, which report shall give an account of all moneys received and all moneys disbursed on account of such operations. He shall make such other reports from time to time as may be required by the President, or by either House of Congress, and such as are in his judgment necessary or expedient.

SEC. 11. That dollars be, and the same are hereby, appropriated to carry into effect the provisions of this Act, out of any money in the Treasury not otherwise appropriated.

SEC. 12. That all Acts and parts of Acts contrary to the provisions of this Act or inconsistent therewith be, and the same are hereby, repealed.

SEC. 13. That this Act shall take effect on and after July first, nineteen hundred and twelve.

NEWS NOTES

THE American Proctologic Society will hold its thirteenth annual meeting at Los Angeles, Cal., June 26 and 27, 1911. Headquarters and place of meeting, Hotel Alexandria, corner Fifth and Spring Streets. The profession is cordially invited to attend all meetings. A very interesting program has been arranged for the session.

THE Jefferson Medical College Alumni Association of St. Louis has requested Dr. C. Lester Hall of Kansas City to serve as chairman of a committee of arrangements for the purpose of organizing a state alumni association. Will those who favor this and can attend, please forward their names at once to Dr. Hall, Brvant Building, Kansas City.

THE alumni of the St. Louis University, medical department (including graduates of the Beaumont Hospital Medical College, the Marion-Sims College of Medicine and the Marion-Sims Beaumont College of Medicine) will hold a banquet at Kansas City Wednesday, May 17, the evening of the second day of the meeting of the Missouri State Medical Association. Tickets may be obtained (\$2 each) from Dr. C. M. Nicholson, 4500 Olive Street, St. Louis, or from Dr. E. P. Lyon, dean, St. Louis University School of Medicine.

To the Alumni of the Missouri Medical College, St. Louis Medical College and Washington University Medical School:—All graduates of these schools are cordially invited to take part in a social reunion and dinner at Kansas City, Mo., May 17, during the meeting of the Missouri State Medical Association.

Tickets, stating time and place, may be had by sending price of plate (\$2) to Dr. R. S. Weiss, 346 N. Boyle Avenue, St. Louis, not later than May 10.

Come and have a good time among friends.

JOSEPH GRINDON, St. Louis,

RICHARD S. WEISS, St. Louis,

W. A. CLARK, Jefferson City,
Committee.

SPECIAL PARTY RETURNING FROM CALIFORNIA.—A number of those who will attend the meeting of the A. M. A. in Los Angeles in June have expressed a desire to take their return trip through Victoria and Vancouver, and enjoy the scenery of the Canadian Rockies, with short stopovers at Banff and other notable resorts. For the accommodation of these, the undersigned is making up a party, leaving Los Angeles on Saturday, July 1, stopping at Santa Barbara, San Francisco, Portland and Seattle, with a daylight boat ride across the sound to Vancouver. From this point the homeward trip will be over the Canadian Pacific Railway through some of the most gorgeous scenery to be found in the world. Stopover at Rochester, Minn., to visit the Mayo clinic, will be arranged for those who may desire. For full information and itinerary, address Dr. Charles Wood Fassett, secretary, Medical Society of the Missouri Valley, St. Joseph, Mo.

THE SEVENTH INTERNATIONAL CONGRESS ON TUBERCULOSIS.—This congress will meet in Rome, Sept. 24-30, 1911. The work of the congress will be distributed among three great sections in order to give scope to the discussion of every possible mode of operation, whether in the individual battle against the disease in its diagnosis and its treatment, or in the combinations against it for the defense of the race against its terrors and its fatal consequences. The three sections are the following: (a) Etiology and Epidemiology of Tuberculosis; (b) Pathology and Therapeutics (Medical and Surgical) of Tuberculosis; (c) Social Defense against Tuberculosis. A special committee is making preparations for an exhibition of social hygiene (to be held at the same time with the congress) which will be the best possible illustration of its work. Membership fee is 25 francs. Those who intend to take part in the congress should apply to the secretary-general, Vittorio Ascoli, 36 Via in Lucina, Rome.

DOCTORS ADDRESS COMMERCIAL CLUB.—On April 18, the Commercial Club of St. Louis listened to addresses on "Modern Medicine and Medical Education," by members of the faculty of the Medical School of Washington University. The speakers were Drs. George Dock, Dean of the Medical School and Professor of Medicine; Dr. David L. Edsall, Professor of Preventive Medi-

cine; and Dr. John Howland, Professor of Pediatrics. Dr. Dock reviewed the progress of medicine from its early beginnings and pointed out the necessity of teaching medical students how to think and act, and apply in practice the results of the remarkable and wonderful discoveries made in recent years in the treatment of disease. Dr. Edsall described the triumphs of preventive medicine and its importance in commercial pursuits. He called attention especially to occupation as a cause of disease and the efforts of the medical profession to teach employers how to protect the health of the working class. Dr. Howland spoke of the medical college and its influence on advances in medicine: the cost of educating students of medicine has greatly increased in the past few years on account of the large number of studies made necessary in the curriculum, while the fee paid by the student does not nearly cover the expense of educating him. The proprietary medical college in its day served a useful purpose but being purely a financial venture it has no place in modern ideas of medical education and is, therefore, doomed to extinction and should be discontinued.

All these papers will be published in *THE JOURNAL*.

MARIE FEODOROVNA PRIZES.—The American Red Cross announces, in connection with the International Conference of the Red Cross which will be held at Washington, D. C., in May, 1912, that the Marie Feodorovna prizes will be awarded.

These prizes represent the interest on a fund of 100,000 rubles which the Dowager Empress of Russia established some ten years ago for the purpose of diminishing the sufferings of sick and wounded in war. Prizes are awarded at intervals of five years, and this is the second occasion of this character. These prizes in 1912 will be as follows: one of 6,000 rubles; two of 3,000 rubles each; six of 1,000 rubles each. The subjects decided on for the competition are:

1. Organization of evacuation methods for wounded on the battle-field, involving as much economy as possible in bearers.
2. Surgeon's portable lavatories for war.
3. Methods of applying dressings at aid stations and in ambulances.
4. Wheeled stretchers.
5. Support for a stretcher on the back of a mule.
6. Easily portable folding stretcher.
7. Transport of wounded between men-of-war and hospital-vessels, and the coast.
8. The best method of heating railroad cars by a system independent of steam from the locomotive.
9. The best model of a portable Roentgen ray apparatus, permitting utilization of x-rays on the battle-field and at the first aid stations.

It rests with the jury of award how the prizes will be allotted in respect to the various subjects. That is to say, the largest prize will be awarded for the best solution of any question irrespective of what the question may be.

Further information may be obtained by addressing the Chairman, Exhibit Committee, American Red Cross, Washington, D. C.

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.—The twenty-first annual convention of the National Confederation of State Medical Examining and Licensing Boards was called to order at the Congress Hotel, Chicago, by the president, Dr. Joseph C. Guernsey. The symposium on "State Control of Medical Colleges" was discussed from the viewpoints of state, law, the medical colleges, state medical examining and licensing boards and the medical profession. From the viewpoint of the state Charles William Dabney, Ph.D., LL.D., president of the University of Cincinnati, read a paper in which he contended that the state could control and conduct medical colleges more efficiently than corporations and private individuals. From the same viewpoint Mr. Abraham Flexner of the Carnegie Foundation for the Advancement of Teaching, New York City, read a paper on "The Duty of the State in the Control of Medical Colleges," advocating this system. From the viewpoint of the law, Hon. Charles Alling, Jr., Chicago, read a paper giving his opinion that the courts would uphold the system. Dr. Arthur Dean Bevan, Chicago, discussed the question from the viewpoint of the medical colleges, setting forth the advantages of state control. (a) as regards uniformity of requirements and methods, (b) as giving adequate financial support. From the same viewpoint, F. C. Waite, A.M., Ph.D., Cleveland, forcefully and hurriedly pointed out the evils inherent under the present system and expressed the opinion that the spirit of competition and commercialism would be eradicated if the state controlled the medical colleges. Dr. Frank Winders, Columbus, Ohio, read a paper in which he contended that with aid rendered by the state, medical education would become more efficient by having all teachers receive a compensation commensurate with their labor, and by having a larger number devote their entire time to teaching than now obtains. From the viewpoint of the state boards of medical examiners, Dr. Edward Cranch, Erie, Pa., declared that the medical boards could more efficiently enforce the laws regulating the practice of medicine and the requirements of the board if medical education were under state control. From the same viewpoint Dr. James A. Duncan, Toledo, presented a paper on the subject "If Medical Colleges were Under State Control, Would the State Medical Boards be Enabled to

Determine More Fully the Standing?" which question he answered in the affirmative. For the medical profession Dr. Royal S. Copeland, New York City, said that if medical colleges were under state control, the medical profession would be more uniformly and efficiently educated and trained than by the present system. Dr. Horace G. Norton, Trenton, N. J., presented a paper in which he held that since the medical colleges are the source of the medical practitioner on which devolves the care and the welfare of the people, they should be under state control. Special papers on the following subjects were presented: "The Necessity of Establishing a Rational Curriculum for the Medical Degree," by Dr. Henry Beates, Philadelphia; "Some Thoughts on the Supervision of Medical Colleges and the Conducting of State Examinations," by Dr. James A. Egan, Springfield, Ill.

The attendance was the greatest in the history of the confederation, and the enthusiasm which began at the opening continued throughout the session. All papers were earnestly and intelligently discussed, the interest becoming so intense that it was necessary to limit the period of discussions.

The Oregon State Board of Examiners, the Louisiana State Board of Medical Examiners (Regular), Dr. R. S. Copeland, New York City, Dr. James H. McDonald, Pittsburg, Dr. F. F. Lawrence, Columbus, and Dr. C. M. Hazen, Bon Air, Va., were admitted to membership in the confederation.

The following officers were elected: president, Dr. Charles A. Tuttle, New Haven, Conn.; first vice-president, Dr. James A. Egan, Springfield, Ill.; second vice-president, Dr. A. B. Brown, New Orleans, La.; secretary-treasurer, Dr. George H. Matson, Columbus, Ohio; executive council: Dr. N. R. Coleman, Columbus, Ohio; Dr. James A. Duncan, Toledo, Ohio; Dr. Charles H. Cook, Natick, Mass.; Dr. Joseph G. Guernsey, Philadelphia; Dr. W. Scott Nay, Underhill, Vt.

SOCIETY PROCEEDINGS

PROGRAM OF THE FIFTY-FOURTH ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION

Jefferson City, May 16, 17 and 18, 1911

MEDICAL SECTION

FIRST DAY—TUESDAY, MAY 16, 1911

Afternoon Session, 1:30 o'clock

COATES HOUSE

1. Treatment of Pneumonia in the Adult.
H. A. Killian, Portageville
2. An Unusual Number of Cases of Broncho-Pneumonia During an Epidemic of Measles.
J. Schooling Gashwiler, Novinger

3. Chronic Arterial Hypertension and Its Relation to Cardiovascular and Renal Diseases.
Geo. W. Goins, Breckenridge
4. Treatment of Cardiospasm: With Demonstration.
Jesse S. Myer, St. Louis
5. Recent Studies in Eclampsia
Geo. C. Mosher, Kansas City
6. The Sterility of Women. H. C. Crowell, Kansas City
7. Dietetics in Infancy Jules M. Brady, St. Louis
8. Buttermilk as an Infant Food
Frank C. Neff, Kansas City
9. Extragenital Chanere
John W. Marchildon, St. Louis
10. Intermittent Limp
Franklin E. Murphy, Kansas City
11. Etiology and Treatment of Dementia Precox.
G. Wilse Robinson, Kansas City
12. Analysis of a Case of Hysterical Monoplegia.
A. L. Skoog, Kansas City
13. Report of a Neurological Case of Obscure Etiology; Treatment and Recovery.
Orville H. Brown, St. Louis
14. Cutaneous Blastomycosis: With Report of Three Hitherto Unpublished Cases.
William Frick, Kansas City
15. The Cornelius Treatment for Peripheral Nerve Diseases: With Report of a Case.
Elizabeth Bentele, St. Louis

SECOND DAY—WEDNESDAY, MAY 17, 1911.

Afternoon Session, 1:30 o'clock

1. The Use of Diet Rich in Carbohydrates in the Treatment of Diabetes Mellitus.
W. P. Elmer, St. Louis
2. The Diagnosis of Chronic Pancreatitis.
Charles C. Conover, Kansas City
3. Difficulties Encountered in the Diagnosis of Gall-Stones.
L. J. Dandurant, St. Joseph
4. Menace to Eyesight from Trachoma.
John Green, Jr., St. Louis
5. The Country Doctor. H. M. Clarke, Platte City
6. Tonsillectomy: With Presentation of Specimen Removed by the Author's Method.
Greenfield Sluder, St. Louis
7. Circulatory Phenomena in the Eye.
W. H. Luedde, St. Louis
8. Some Practical Problems in Ear, Nose and Throat Practice.
Robert Barclay, St. Louis
9. Differential Symptoms in Intracranial Disease: From an Otologist's Standpoint.
W. D. Black, St. Louis
10. Diseases of the Eye an Index to Constitutional Diseases.
C. W. Watts, Fayette
11. Etiology and Treatment of Acute Insanity.
Jno. D. Seba, Bland

SURGICAL SECTION

FIRST DAY—TUESDAY, MAY 16, 1911

Afternoon Session, 1:30 o'clock

COATES HOUSE

1. Symposium on Obstructions of the Urinary Tract:
 - a. Obstructions at the Bladder Neck.
F. M. McCallum, Kansas City
 - b. Obstructions of the Upper Urinary Tract.
Jacob Block, Kansas City
2. Rupture of the Urinary Bladder Associated with Fracture of the Pelvic Girdle: Report of a Case.
James P. Henderson, Kansas City
3. Some Points in Connection with Breast Tumors.
H. Tuholske, St. Louis
4. Thoracic Drainage. Howard Hill, Kansas City
5. Report of Two Cases of Tubal Pregnancy.
F. J. Nifong, Columbia
6. The Choice of Operative Measures in the Treatment of Extra-Uterine Pregnancy.
Frank Hinchey, St. Louis

7. Carcinoma: With Special Reference to Carcinoma of the Lip.
T. E. Potter, St. Joseph
8. Venous Anesthesia. Gustav A. Lau, St. Louis
9. Rebreathing in Ether Anesthesia: With Special Reference to the Carbon Dioxid Content.
W. E. Leighton, St. Louis
10. Doederlein Pubiotomy. Percy H. Swahlen, St. Louis
11. When Should the Appendix be Removed in Pelvic Operations?
H. S. Crossen, St. Louis

SECOND DAY—WEDNESDAY, MAY 17, 1911.

Afternoon Session, 1:30 o'clock

1. The Ascending Colon. J. M. Bell, St. Joseph
2. Obstruction of the Bowel: With Special Reference to Early Diagnosis and Treatment.
W. C. G. Kirchner, St. Louis
3. Intestinal Obstruction: With Report of a Rare Case.
C. M. Nicholson, St. Louis
4. Personal Observations in the Treatment of 136 Consecutive Cases of Uterine Myoma.
W. B. Dorsett, St. Louis
5. Joint Tuberculosis: With Special Reference to the Use of Formalin and Glycerin Injections.
Roland Hill, St. Louis
6. The Value of Alcohol in Surgery.
M. G. Seelig, St. Louis
7. Report of a Case of Obscure Infiltration of the Abdominal Wall. Luther A. Todd, St. Joseph
8. The Abdominal Wall in Obese Subjects: Its Care After Abdominal Section.
Francis Reder, St. Louis
9. The Country Doctor and Appendicitis.
A. B. Miller, Macon
10. Intestinal Obstruction.
W. P. Reynolds, Kansas City
11. Benign Pyloric Obstruction.
C. R. Dudley, St. Louis
12. Some Surgical Complications of Pregnancy.
Gordon A. Beedle, Kansas City

GENERAL SESSION

FIRST DAY—TUESDAY, MAY 16, 1911

CASINO HALL

1. Address of President.
Herman E. Pearse, Kansas City
2. Oration on Medicine. E. H. Miller, Liberty
3. Oration on Surgery.
Robert M. Funkhouser, St. Louis

SECOND DAY—WEDNESDAY, MAY 17, 1911.

Morning Session, 9 o'clock

CASINO HALL

1. Symposium on Exophthalmic Goiter:
 - a. Diagnosis. Wm. W. Graves, St. Louis
 - b. Pathology. Ralph L. Thompson, St. Louis
 - c. Treatment. Willard Bartlett, St. Louis
2. Goiter: Its Medical and Surgical Treatment.
C. O. Dewey, Breckenridge
3. Thyroid and Parathyroid Glands.
Charles Geiger, St. Joseph
4. Indications for the Use of the X-Ray in Goiter.
J. N. Scott, Kansas City
5. The Progress in the Treatment of Goiter.
Edward G. Blair, Kansas City
6. Diagnosis of Rabies. D. L. Harris, St. Louis
7. Blindness Following Administration of Organic Arsenic. A. W. McAlester, Jr., Kansas City
8. Division of Fees. J. B. Taulbee, Joplin
9. Suggestions for the Improvement of Our County Societies. H. F. Parker, Warrensburg
10. The County Society: What it Should do to Advvertise the Quack. H. E. Songer, Jamesport
11. On Certain Symptoms which are Frequently Unrecognized as Being Indicative of Disturbances of the Prostate and Vermontanum.
John R. Caulk, St. Louis

12. Early Care of Acute Abdominal Conditions.
W. T. Coughlin, St. Louis

SECOND DAY—WEDNESDAY, MAY 17, 1911.

Evening Session—8:30 o'clock

1. Pathology of the Rectum in Diagnosis and Treatment: Illustrated with Lantern Slides.
W. H. Stauffer, St. Louis
2. Anterior Poliomyelitis: Its Diagnosis: Illustrated with Lantern Slides. E. Sanborn Smith, Macon
3. A Differential Study of Multiple Benign Cystic Epithelioma and Adeno-Sebaceum in the Negro. Illustrated with Lantern Slides.
Richard L. Sutton, Kansas City

THIRD DAY, THURSDAY, MAY 18, 1911

Morning Session, 9 o'clock

1. Election of President.
2. Election of Orator on Medicine.
3. Election of Orator on Surgery.
4. Report of the Committee on Legal Defense.
F. J. Lutz, Chairman, St. Louis
5. Report of the Committee on Ophthalmia Neonatorum. B. M. Hypes, Chairman, St. Louis
6. Report of the Committee on Medical Education.
C. Lester Hall, Chairman, Kansas City
7. Report of the Committee on Public Policy and Legislation.
Robert M. Funkhouser, Chairman, St. Louis
8. Report of Committee on Tuberculosis.
E. W. Schauffler, Chairman, Kansas City
9. Report of the Committee on Medical Expert Testimony.

THIRD DAY, THURSDAY, MAY 18, 1911

Afternoon Session, 2 o'clock

1. Symposium on Retrodeviation of the Uterus:
 - a. Etiology. O. Hoffman, Kansas City
 - b. Diagnosis. George Gellhorn, St. Louis
 - c. Treatment. O. Beverly Campbell, St. Joseph
2. Report of the Committee on Cancer:
 - a. Pathology. W. McN. Miller, Columbia
 - b. Surgical Treatment. A. E. Hertzler, Kansas City
 - c. Non-Surgical Treatment. Joseph Grindon, St. Louis
3. Clinical Deductions in the Study of Tuberculosis. Paper No. 2. William Porter, St. Louis
4. Puerperal Infection. W. R. Beatie, Marshfield
5. Function of the Ductless Glands. C. W. Watts, Fayette
6. Physical Movements of Man an Index to his Mental Status. T. F. Lockwood, Butler

Tuberculosis Exhibit in Casino Hall during entire meeting, in charge of Miss Winifred Doyle, Secretary of the Anti-Tuberculosis Association.

ADAIR COUNTY MEDICAL SOCIETY

The Adair County Medical Society held its regular monthly meeting on Thursday evening, April 6, at the office of Drs. Martin and Parrish, Kirksville.

The subject of a free clinic to be established by the society for the worthy poor was discussed, and the following committee appointed to draw an outline and report at a subsequent meeting: Drs. Martin, Callison and Parrish.

Resolutions were passed and the delegate to state meeting instructed to support the "Act to Regulate the Civil Service of the State Hospitals of Missouri," as the Adair County Medical Society believes this to be an ideal measure to increase the efficiency of our state institutions.

The scientific program was next taken up, and Dr. A. W. Parrish delivered a very interesting and instructive lecture on the subject of "Pneumonia." He carefully elucidated the different stages, and gave a very intelligent analysis of the different varieties of pulse encountered in this condition, the symptomatic treatment as indicated by the progress of any given case. He laid special emphasis on the pulse as to its volume, rhythm and frequency. The paper brought out a lively discussion by members and many valuable points were given in the course of the discussion. All in all, it was one of our best meetings, and the society is in excellent condition and doing excellent work.

The next meeting will be held on the first Thursday in May.

BERT B. PARRISH, M.D., Secretary.

ATCHISON COUNTY MEDICAL SOCIETY

Atchison County Medical Society held its second quarterly meeting in Rockport, Thursday, April 6.

Officers present: C. M. Waugh, president; A. McMichael, secretary; J. A. Postlewait, delegate. Members present: J. A. Postlewait, E. P. Whitford, Dr. Haskil, C. T. Settle, E. A. Lewis and W. R. Strickland.

Dr. Settle, of Rockport, presented a case, a boy 10 years of age, who had an unusually excessive hemorrhage in the conjunctival membrane of both eyes, caused by violent paroxysms of coughing while suffering from an attack of pertussis.

Dr. Whitford read a paper entitled: "Obstetrical Experiences," which was very interesting. The doctor's experiences beginning in New York and extending as far west as Missouri, were varied and he was many times placed in a very awkward as well as embarrassing situation, which caused no small amount of anxiety at the time. He related these experiences in such a humorous way that they were very interesting and entertaining to the society, and furnished many suggestions that were discussed by all present.

Our membership is one less than at the beginning of the year for we lost Dr. G. W. E. Chamberlain, who died Feb. 22, 1911: age, 82.

AUSTIN McMICAL, M.D., Secretary.

BARTON COUNTY MEDICAL SOCIETY

The Barton County Medical Society met in regular session in Lamar, Friday, April 21. Dr. J. F. Cromley in the chair.

The following members were present: J. F. Cromley, G. D. Allee, C. F. Brown, W. L. Griffin, A. B. Stone, J. K. Cole, of Lamar; T. H. Duckett, Millford; E. C. Sharp, Newport. Dr. McKelvy of Opolis, Kans., was a visitor.

Two hours were spent in discussing the best methods of fumigation for contagious diseases and the treatment of small-pox.

Dr. A. B. Stone, of Lamar, was elected delegate to the state association; Dr. T. H. Duckett, alternate.

Adjourned to meet May 26.

A. B. STONE, M.D., Secretary.

BENTON COUNTY MEDICAL SOCIETY

Benton County Medical Society met in regular session March 31, in Dr. H. G. Savage's office, Warsaw. Dr. W. G. Jones, president, called the meeting to order at 2 p. m.

The application for membership of Dr. Simones of Frisco (late of Sedalia), was received and he was unanimously elected. Members present were: Dr. W. G. Jones, Lincoln; Dr. Marion Dillon, Fairfield; Drs. H. G. Savage, R. L. Pomeroy and J. R. Smith, of Warsaw.

Cases of clinical interest were discussed by the members present.

A standard fee bill was voted on and adopted, subject to the ruling of the society at its next regular meeting.

Dr. Marion Dillon gave the members of the society a very pressing invitation to hold the next meeting at Fairfield, with assurance of plenty to eat and a jolly good time. Fairfield is one of the finest fishing resorts in the state, located on the Pom-le-de-tarre river. Dr. Dillon has one of the finest and best equipped offices outside of a large city, and he in person is equal to the emergency.

Dr. Jones, president, selected Warsaw as the next meeting place, it being more central for the greater number and appointed a meeting for Thursday, May 4, so as to get all in readiness for attendance at the state meeting at Kansas City, on the 16-18, but in doing so Dr. Dillon was given a unanimous vote of thanks for his invitation and offer of hospitality and assured that at the next meeting following the May meeting we would certainly accept his invitation with the greatest pleasure.

Drs. Jones and Dillon were instructed by the secretary to read papers at the next meeting on some important subject.

Meeting closed in due form.

R. D. SMITH, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society met at Harrisonville, April 6. Members present: Drs. Adair, Crawford, Elder, Ellis, Jerard, Long, Triplett and Wright.

The following interesting program was carried out and all the members took part in the discussions of each paper: "Ataxic Tabes," by Dr. W. K. Wright, "Syphilis of the Nervous System," by Dr. T. W. Adair, "Hyperchlorhydria," by Dr. F. B. Ellis.

Dr. David S. Long was elected to membership.

A resolution was adopted indorsing the "Act to Regulate the Civil Service of the State Hospitals of Missouri." The secretary was directed to notify the St. Louis Medical Society of this action.

H. S. CRAWFORD, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

At the regular session of the Greene County Medical Society held Friday, April 14, Dr. Rienhoff read a very interesting paper on "Some Modern Aspects of Syphilis." He pointed out six facts of fundamental importance that have been added to our positive knowledge of syphilis within the last decade, and that ten years ago we possessed at best only an indistinct anticipation.

The first of these facts is the proof furnished by Unna and his pupils, that syphilis is indigenous to and has been spread over the whole world from the West Indies and the country adjacent to the Gulf of Mexico. The second truth is the discovery of the spirochete pallida by Fritz-Schaudinn and the demonstration of its regular and causative connection with syphilis by Schaudinn and Erie-Hoffman jointly. The third fundamental fact is the successful transmission by vaccination of syphilis from man to animal. The fourth truth brought to light within our decade is the realization that syphilis is no longer a unique disease, different in cause and deleterious effects from all other known diseases. The fifth is the discovery of the Wassermann test. The sixth great fact of fundamental importance is the introduction by Ehrlich and Hata of Salvarsan in the treatment of syphilis. This paper brought forth quite a lengthy and interesting discussion by those present.

At this meeting the application of Dr. W. H. Cowden for membership was read and referred to the Board of Censors, and Drs. A. L. Anderson and H. A. Lowe were

elected members of the Society. The attendance was fair and the interest good.

THOS. O. KLINGER, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

The Howard County Medical Society met at the secretary's office, Fayette, Friday, April 7. Present, Drs. Wright, Moore, Bonham, Lee, Lewis, Payne, Burgwin, Richards and Watts. The president, Dr. Wright, in the chair.

The president appointed the following committees for 1911: Committee on Program and Scientific Papers, Drs. Watts, Hume, of Armstrong, and Fleet, of New Franklin.

Committee on Public Policy and Legislation: To prosecute quacks and all medical frauds in the county, and to cooperate with the Missouri State Board of Health: Drs. A. W. Moore, C. O. Lewis and A. B. Burgwin.

Board of Censors: Drs. C. O. Lewis, Bonham and Moore.

Dr. Moore gave an outline of his paper on the new treatment of syphilis by the Ehrlich-Hata (606) method.

Dr. C. H. Lee presented the results of his treatment of cases by intravenous method and preferred that method as giving the best results with less pain.

Dr. Watts read his paper on "Functions of the Ductless Glands," which was highly complimented and ordered published.

Dr. Wright enforced parliamentary usage which expedited the work; and he reminded the members of their duty to attend the state meeting.

We meet again Friday, May 5, 1911.

C. W. WATTS, M.D., Reporter.

MONITEAU COUNTY MEDICAL SOCIETY

Moniteau County Medical Society met in called session at Tipton, Mo., April 6, at 2:00 p. m. Dr. H. S. Marsh presided and the following members were present:

Drs. DeVilbiss, J. M. Marsh, H. S. Marsh, Wilson, Williams, Long and Freudenberger. Dr. J. P. Burke of California, was made a member of the society.

Dr. J. H. Long read a paper entitled "Rheumatism in Children." This was a very practical and instructive paper and was received with interest by everyone present.

Dr. H. S. Marsh read a paper entitled "Vaccine Therapy," and gave extensive case reports of a number of cases he had treated with vaccines. This was a carefully prepared and very scientific paper.

Dr. Frank DeVilbiss and Dr. P. E. Williams each presented interesting clinical cases.

As Dr. J. B. Stewart, a member of our society, died since the last meeting of the society, the president appointed a committee to draw up appropriate resolutions. The following report by the committee was read and unanimously adopted:

Dr. John B. Stewart, the oldest practicing physician in Moniteau County died at his home in Clarksburg, Mo., March 17, 1911, and the funeral services took place on Tuesday, March 21.

Dr. Stewart was born in Guernsey County, Ohio, in 1838, he being at the time of his death 73 years of age. He resided in his native county until 1861, the time of the breaking out of the Civil War, when he enlisted in the first Ohio cavalry in which he served until he was mustered out in 1864. In 1866 he was married to Miss Elizabeth Fordyce, a native of Ohio who, with three children, survives him. In the year 1867 he graduated in medicine from a Cincinnati college and during the same year he located at Clarksburg, Mo.

for the practice of medicine, at which place he continued in active practice until the time of his death—a period of over forty-four years.

Dr. Stewart was in active practice for almost a half century and during the forty-four years spent in Clarksburg he took a prominent part in almost every move that was made for the improvement and upbuilding of Clarksburg and surrounding community.

He was prominent not only in medical lines, having been at one time president of the John McDowell Medical Association, and at the time of his death a member of Moniteau County and Missouri State Medical Societies, but in educational and political lines as well. At one time he represented Moniteau County in the Missouri legislature. He was a great friend of education at all times giving of his time and money freely toward any movement that promised any hope of improvement of the educational standards of his town. It was largely through his efforts and assistance that Clarksburg College was established and perpetuated for the last thirty-five years.

By nature he was an idealist. He always looked up, not down. He was optimistic in all things. But unlike many another idealist he lived to see many of his highest ideals blossom and mature. He was not strictly a dreamer but a doer as well; and ever struggled heroically and manfully to bring about a consummation of his ideals. He was public spirited to the core, and was generous to a fault. He gave prodigally of his time and money to all worthy improvements. Gentle in manner, firm in conviction, a faithful friend, kind and affectionate husband and father, and a worthy member of this association; it is with deep regret we record his death.

Resolved, That the Moniteau County Medical Society has lost in the death of Dr. Stewart one of its strongest supports in the advocacy of greater medical achievements and moral rectitude. His aim was ever higher, his advice always encouraging to the younger members to gain the greatest honors attainable in the profession.

Resolved, That while we yield with submission to the will of an inscrutable and allwise Providence that has seen fit to take one of our esteemed members from us, yet we feel that humanity has lost in him an able adviser and the cause of medicine would have been strengthened and benefited by his longer stay among us.

Resolved, That we extend to the family our deepest sympathy in the loss of a loving father and devoted husband.

Resolved, That a copy of these resolutions be spread upon the minutes of the association, a copy furnished the Missouri State Journal and one also be sent to his family.

P. E. WILLIAMS,
J. H. LANG,
H. C. FREUDENBERGER.

The Committee.

The society then adjourned to meet again in Tipton on the second Thursday in June.

H. C. FREUDENBERGER, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

MEETING OF MARCH 1

A regular meeting of the society was held on March 1, 1911.

Dr. F. H. Ladd called attention to the evidence given before a coroner's jury, in a case of alleged abortion. The transcript was referred to the committee on Public Health and Legislation.

Paper on "Cancer" was read by Dr. F. Damour and discussed by Dr. Levi Long. Discussion closed by Dr. Damour.

Paper was read by Dr. J. M. Bell on "Colica Mucosa" and discussed by Drs. McGill, Ferguson and Levi Long. Discussion closed by Dr. Bell.

Motion to adjourn, to enable the committee on the meeting of the Missouri Valley Medical Association to hold an executive session, was carried.

MEETING OF MARCH 15

The regular meeting of March 15, 1911, was called to order by the president, Dr. S. F. Kessler.

The application of Dr. B. W. Tadlock, of Agency, Missouri, read and referred to censors.

The Committee on Public Health and Legislation returned the transcript of the evidence in the case of alleged abortion, for final action by the society. Motion of Dr. J. T. Stamey to refer the evidence to the State Board of Health, for such action as they deem advisable, carried.

Dr. L. J. Dandurant read the paper of the evening on "Extreme Edema of the Cecum and Ascending Colon Following Gangrenous Appendicitis," which was discussed by Drs. O. B. Campbell, C. H. Wallace and W. W. Gray. Discussion closed by Dr. Dandurant.

Dr. C. W. Fassett made announcements regarding the meeting of the Missouri Valley Medical Association.

HERBERT LEE, M.D., Secretary.

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(Continued from page 354)

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THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume VII

JUNE, 1911

Number 12

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EDITOR

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ORIGINAL ARTICLES

THE ROENTGEN RAYS IN THE DIAGNOSIS OF TABETIC OSTEO-ARTHROPATHIES

REPORT OF EIGHT CASES WITH SKIAGRAMS

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ST. LOUIS

To every medical man *tabes dorsalis* is a disease of particular importance and perennial interest. The tabetic's dominant symptom, sometimes one thing, sometimes another, may lead him to a general practitioner, a surgeon, or a specialist—for first advice.

Oculists, aurists, laryngologists, internists, dermatologists, urologists, dentists, as well as orthopedists and neurologists, testify in an enormous literature to their respectful appreciation of locomotor ataxia and its complex manifestations. Of these manifestations one of the most eccentric is tabetic osteo-arthropathy (Charcot's joint). I desire to adhere as strictly as possible to the text indicated by the title of this paper, that is to say, the roentgenologic aspect of Charcot joints, but to make the matter intelligible I shall quote briefly from authorities regarding the general features of the disease.

The cardinal clinical features of a tabetic arthropathy are sudden and enormous swelling of a joint, usually with complete absence of pain and tenderness. Ordinary signs of inflammation are not present—no heat, no redness, no pain on pressure. In some cases the swelling subsides and leaves few traces. In nearly all there are aggravated recurrences with extensive changes in the joint structures.

Pathologically the capsules are dilated, ruptured, even destroyed. The ligaments are diseased or destroyed. The synovial membrane is thickened or absent. The joint fluid is thin and clear, or perhaps purulent and bloody; it may contain bony particles and detritus. The ends of the bones and joint surfaces may be atrophied and eroded, or may be greatly hypertrophied.

Both types may be combined in the same joint. "Old tabetic joints present merely a bag of bone fragments" (Church).

In Flatow's 139 cases, referred to by Church, the order of frequency follows: knee, sixty; foot, thirty-nine; hip, thirty-eight; shoulder, twenty-seven; elbow, hand, fingers, maxilla, four to six times each. Wolde⁴⁶ found the knee affected in more than half the cases recorded. Limbach's²⁹ table drawn from Erb's 400 cases of *tabes* showed arthropathies in 1.75 per cent.

Bramwell⁹ found bone and joint lesions in over 6 per cent. of a total of 273 cases.

The so-called tabetic foot will not be included within the scope of this paper. According to Wilson and others this somewhat common deformity is essentially an arthropathy. According to Joffroy²⁴ "it is not a club-foot from contracture, nor from atrophy like that of infantile spinal paralysis, nor a club-foot of bony nature, but a club-foot by flaccidity—an atonic club-foot." Of course, an arthropathy may occur in the feet as elsewhere, but if Joffroy be accepted as authority, the ordinary tabetic foot is not arthropathic in character.

Typical cases of arthropathy developing during the course of a recognized *tabes dorsalis* are not especially difficult to diagnose. But, and Charcot himself insisted on this point, the arthropathy may occur in the prodromic or preataxic stage. Kredel found this true in twenty-one of 132 cases of tabetic joint disease, nearly 17 per cent. Here the diagnosis becomes a matter of importance and possibly of difficulty. (See also cases reported by De Grandmaison,¹³ Jolly²⁵ and Stefani.⁴⁴) Casually an arthropathy without tabetic phenomena might be ascribed wholly to trauma, or mistaken for a tuberculous joint, rheumatism, arthritis deformans, hypertrophic or atrophic arthritis. Of at least superficial similarity to vertebral osteo-arthropathy also are rhizomelic spondylosis and ankylosing vertebral rheumatism, examples of which are reported by Raymond and Oddo.³¹

Complications may interfere with a clinical diagnosis and some of them are of more than passing interest to the roentgenologist. Brissaud,⁸ Bauer and Gy have noted a suppurative arthropathy in a tabetic. Spillman⁴³ reports a knee case resembling syphilis. Druebert⁴⁵ has had a suppurative tabetic arthropathy of the elbow. Simon and Hoche⁴¹ describe the ultimate tuberculization of a tabetic arthropathy. The latter three reports were not available for consultation but it is assumed that the titles were sustained by the text.

It is of course to be remembered that nervous disorders other than locomotor ataxia are sometimes accompanied by arthropathies similar to or identical with those observed in tabes. Syringomyelia and general paralysis of the insane are such (see Billington⁶ and Stern⁴⁵). Deserving also of mention in this connection are the arthropathies occasionally complicating psoriasis.*

Bone and joint lesions suggesting acromegaly occurring in tabetics, such as in the case reported by Dercum,** might annoy the diagnostician.

Certain cases of spondylitis deformans (chronic ankylosing spondylitis), for example one of those reported by Diller and Wright*** require differentiation from tabetic vertebral osteo-arthropathy.

It is noteworthy that the vast majority of Charcot joints reported in the literature were tabetic, and in any given case the possibility of tabes dorsalis must be excluded. Hence the occasional exceptions are of interest mainly to neurologists. Bone structures being involved, the

Roentgen rays have naturally been many times employed in the investigation of these lesions. Looking through the records, especially those of the past decade, I have found the following cases in which the x-rays were of material aid:

Baduel² reports two vertebral cases in which the rays were applied.

Ballet and Barbet³ contribute a case of mono-symptomatic tabetic arthropathy of the knee. The skiagram was not regarded by Joffroy as confirming the diagnosis.

Bienfait⁵ is enthusiastic. He says: "Before we used the x-rays we could not diagnosticate the trophic forms of tabes, unless the lesions were gross. Now that we have the x-rays, we have a means of investigation which informs us of the condition of the bones, and in certain tabetics in which there is rarefaction of bone, the skiagrams show great transparency of the bony substance. Moreover, the meshes of bony tissue are enlarged, another evidence of atrophy. The x-ray examination thus adds another symptom to the tableau, the Romberg, the Argyle-Robertson, the ataxia, and in doubtful cases confirms the diagnosis."

Bienfait reports two cases in point. The first was that of a man aged 50. The left foot became swollen, following a slight injury. Skiagraphy showed obliteration of the anterior part of the calcaneum. The head of the astragalus, which was also in bad condition, had descended into the new cavity in the calcaneum. The lower part of the cuboid was also destroyed. The bones of the foot were unusually transparent. The skiagraphic and clinical signs together make out the diagnosis. The second case was that of a man aged 63, who had rheumatism. The left thumb was swollen and very mobile. Skiagraphy showed luxation of the thumb, calcareous deposits in the ligaments and slight bone atrophy in both hands. Further investigation brought out the diagnosis of tabes.

Cohn¹¹ is briefly quoted as praising the Roentgen rays for "making diagnosis possible in the inflammatory stage of the disease."

Cornell's¹² report of a vertebral case is enhanced in value by Baer's skiagram.

Donath¹⁴ shows by the roentgenograms of the two subjects the rarefaction characteristic of bone atrophy. He thinks that "the decalcification has a tendency to affect the bones of the foot and hand rather than the long bones."

Dupre and De Vaux¹⁶ after a study of their skiagrams concluded that "it is possible to distinguish in tabetic arthropathies a type somewhat different from the classic form, not in its nature or results, but in the more fibrous than osseous nature of its distribution. The name of tabetic periartropathy can be given to this form."

Gibert's¹⁹ four cases are interesting to pathologists.

* An article by C. Adrian (Ueber Arthropathia Psoriatia, Mitteilungen a. d. Grenzgebieten d. m. und Chir. Jena, ii, 2, 1903) was abstracted in *Journal A. M. A.*, June 6, 1903, as follows: "Adrian applies this term to a multiple joint affection complicated with psoriasis and distinguished by its chronic course, the lack of influence of the salicylates and the frequent deformities and destruction of the joints which it may entail early. He has found records of eighty-one cases in the literature and described another personally observed. The patients were mostly males, usually between 40 and 45, affected with general psoriasis. No predisposing factor could be discovered in the histories except in a few isolated instances in which a central or reflex trophic neurosis might be incriminated. There was no evidence of an infectious character, except possibly, the occurrence of exacerbations occasionally during the protracted course of the disease. No connection could be discovered between it and gout, gonorrhea or syphilis."

** F. X. Dercum (*Jour. Nerv. and Mental Dis.*, 1909, 507) reports a case in a man, 36, in whom there were trophic changes suggesting acromegaly. The chin was enlarged and protruding. The nose, zygomatic arches, occipital protuberance, hands and wrists, malleoli and lower portions of the tibia and internal condyle of right knee were all enlarged. The joint surfaces seemed normal, no roughness nor effusion being present. Autopsy: Tabes, pulmonary tuberculosis, chronic myocarditis and interstitial nephritis. The hypophysis cerebri was twice the normal size. Dercum suggests that where there are marked atrophic changes in tabes, it may be wise to examine the pituitary body and other ductless glands.

*** Theodore Diller and George Wright, Pittsburg (*Jour. A. M. A.*, May 30, 1903), report five cases of spondylitis deformans (chronic ankylosing spondylitis). One of these was a woman 46; ten years previous left breast had been removed for cancer; no recurrence. There is now a right seventh nerve palsy and patient cannot close right eye. The spine from last cervical vertebra to pelvis is rigid. The right shoulder is very much enlarged, and also the upper part of the humerus, the general enlargement being apparently bony in character. Movements of right arm limited and efforts to raise it beyond an angle of 45 degrees causes great pain. Knee-jerks and Achilles jerks absent. X-ray by Dr. Silver "shows the undoubted presence of spondylitis."

In Maillard's³⁰ case the skiagrams showed two previously discovered fractures in the metatarsals.

Oulmont and Gilbert³² describe a case in which over a month of careful observation was spent without arriving at a diagnosis until the patient was skiagraphed. The x-ray showed double symmetrical fracture of the calcaneum. The fractures had occurred without the slightest pain. Edema resulted and it was for this that the patient went to the hospital.

Raymond and Guillain's³⁶ case was greatly illuminated by skiagraphy, which showed bony destruction of an intensity that could not be foreseen by clinical examination.

Discussing Sheaff's⁴⁰ case, Hawke said he believed that arthropathies in locomotor ataxia and general paralysis of the insane are more common than recorded. This fact was borne out in cases he had under his observation in which the

ing pains in legs past two months. Difficulty in holding water past five years. Sees better by day. Present condition: 5 ft. 8 inches tall, weighs 200; walks on crutches. Rombergism marked with closed eyes. Pupils both small; right larger than left. Consensual; right absent; left sluggish. Direct sluggish. Right thigh broken at 8 years; since then shorter; muscles well developed. Right knee-joint is distorted about anterior and inner aspect; knee in position of genu in cavato. Marked hyperextension standing. Numerous bony prominences can be palpated. They are attached to femur. Crepitus on moving. No pain on manipulation. Left foot shorter a half inch. Hollow obliterated and



Fig. 1.

x-ray showed arthropathy where simple inspection was negative. In all cases where one joint was involved, the other joint should also be skiagraphed, he thought.

Others who have reported the employment of Roentgen rays in arthropathies are Claude,¹⁰ Eisendrath,¹⁷ Frank,¹⁸ Graetret,²⁰ Grosse,²¹ Hofbauer,²³ Klippel and Monier,²⁶ Lejonne and Gougerot,²⁸ Pattel-Cavaillou,³³ Putnam,³⁴ Roasenda³⁸ and Severino.³⁹

The eight cases which I have here to report are as follows:

CASE 1 (referred by Dr. W. W. Graves).—C. M., age 45, clerk, family history negative. Personal history: Chancre (so-called) on penis at 20. No sores in mouth, eruption or alopecia. Drank excessively up to ten years ago. Married at 24, now separated. Wife had three normal pregnancies. Children healthy. Four years ago had a painless swelling about right knee, which grew worse until he could not step on it. Joint treated by vesication. Amputation once suggested; never any pain. In 1894, age 34, sprained one ankle and five months later swelling appeared there. Has had to wear a special shoe since, but no pain. Shoot-



Fig. 2.—Typical Charcot knee (right) and foot (left). Same case as that shown in skiagram Figure 1.

filled with a bony, doughy prominence. Reflexes: radius active; triceps less so. Achilles both absent. Left knee-jerks absent. Soles of feet hypersensitive, especially right. R. plantar reflex; not on left. Disturbed sensation about the trunk in distribution of two to ten dorsal inclusive. In this area feels slightest touch, distinguishes between head and point, heat and cold, but less acutely than in areas above and below these limitations. Normal zone from navel down. Disturbed sensation areas in lower extremity, dorsal surfaces of feet and post-axial surfaces of upper limb. Posture sense not altered. Able to make right angle movement and flexion right knee. Left ankle-joint movement, active and passive, very limited.

SKIAGRAM, FIG. 1. PHOTOGRAPH, FIG. 2

Right knee. Lower end of femur eroded. Condyles and patella destroyed until they are no longer recognizable as such. Semilunar cartilages gone. Femur displaced anteriorly and inwardly. Proliferation and roughening extends up shaft of femur posteriorly four or five inches. Detritus marked about joint.

Left foot. The cuneiforms, cuboid and scaphoid fused into one mass and pushed downward, obliterating arch. Scaphoid partly destroyed. Calcaneo-astragaloid articulation partially fused.

CASE 2.—Following is a case referred to me for x-ray examination at St. Louis City Hospital. With the permission of Dr. W. R. Hewitt, resident physician, the history, dated March 14, 1910, as it appears in the hospital records, is given below:

W. B., age 56, laborer, single. Has had hydrocele for five years; aspirated several times. Entered hospital to have same operated on. Family history negative. Past history: Ordinary diseases of childhood. Chancres with buboes twenty years ago. Gonorrhea eight years ago. Has received treatment for stricture. Present trouble: Hydrocele for the last six years; gradually increasing in size, during which time it has been aspirated several times. Physical examination: Thoroughly well nourished and developed. Weight,



Fig. 3.

140. Has an enlargement of tibia and ankle, very likely syphilitic in origin. Diagnosis: Left hydrocele, nephritis; mitral regurgitation. Syphilitic exostosis of tibia and ankle. Old fracture of tibia.

SKIAGRAM, FIG. 3

Right ankle. Outward dislocation of tibia and fibula, with fracture of external malleolus which is turned inward under tibia. External malleolus fractured and bent inward. Above the astragalus is seen a wedge-like exostotic mass, attached to the tibia. Translucent areas in lower end of tibia and fibula, minute in latter, but visible in original plate. Exostotic masses on either side of the astragalus. Lateral anterior dislocation of tibia and fibula. Proliferation of bone above astragalus and posterior to tibia and fibula.

Roentgenologic diagnosis: Tabetic osteo-arthritis. (On further inquiry I found that I had skiagraphed this patient about two years previously, at which time he was known to have tabes and a tabetic joint.)

CASE 3 (referred by Dr. N. Allison).—D. C., white, single, male, laborer, age 41, with a clinical diagnosis of Charcot's joints, referred for skiagraphy of right hip, right ankle and both wrists, Feb. 2, 1911. Patient

states that he had a swollen hip with great disability coming on suddenly last November. There was no pain. The joint then seemed very lax, and there was loss of control. The condition is now about the same, except that swelling has been diminished, relieving the tense feeling. Ankle began about same time as hip. Swelling mostly bony. Limitation of all movements. Knee jerks absent. History of gonorrhea in 1892. Sore on penis in 1903.

SKIAGRAM, FIG. 4

Right wrist. Beginning tabetic osteo-arthritis. Most of the carpals can be distinguished, but they show considerable fusion and proliferation. Small bony fragments (joint mice) within capsule at lower end of ulna and radius.

Left wrist (not shown here): Exactly similar to right but less advanced.

Right ankle: Lateral view showed marked proliferation behind tibio-astragaloid articulation above os calcis. Astragalus condensed. Detritus between fibia



Fig. 4.

and astragalus, and between astragalus and calcaneum. Beaking of anterior superior margin of astragalus. Small proliferative mass at anterior tibio-astragaloid articulation.

Right ankle, anterior view: Trans-malleolar broadening. Proliferation and enlargement of both malleoli obliteration of articular space.

Right hip: Complete absence of head and neck of femur, with considerable detritus above greater trochanter.

CASE 4 (referred by Dr. Phil. Hoffman).—Fred P. B., age 40. Early in December, 1908, a slight swelling appeared outside the left ankle, rapidly extended and within a few days involved the entire joint. When first seen March 31, 1909, the swelling had remained about stationary for a time.

Pain generally absent or slight and never in proportion to visible and palpable physical changes.

He was seen early by a competent internist, who, according to patient, diagnosed elephantiasis. Later another physician made the diagnosis of rheumatism.

Left ankle: Over malleoli measures 13.4 cm. greater than right.

Marked enlargement of bone with articular destruction. Joint abnormally loose. No tenderness, very slight heat. Marked edema of foot and lower part of leg.

General tabetic symptoms not marked, and patient not aware of them.

April 6, 1910, Dr. Campbell reports tabes.

SKIAGRAM, FIG. 5

Left ankle: All of the tarsal bones show more or less disintegration, especially of the astragalus, scaphoid and cuneiforms. The astragalus is so much destroyed that it no longer supports the tibia, which has descended far below its accustomed situation. Behind the tibia and fibula and above the os calcis is a hypertrophic mass, extending upward to the junction of the middle and lower thirds, and apparently arising from the fibula.

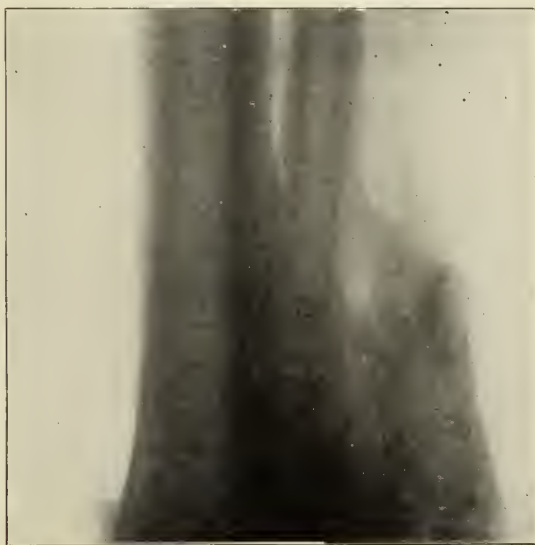


Fig. 5.

from the fibula. Some masses of bone detritus are seen anterior to the lower end of the tibia.

CASE 5 (referred by Dr. N. Allison).—Some of the original notes have been lost, but Dr. Allison kindly furnished the following data:

M. L. age 42, seen first, April 2, 1910. Has had difficulty in walking for a year and six months, and sometime previous to that his ankle became swollen, giving no symptoms of pain or stiffness. Had syphilis at the age of 22. General health has been good and he has worked up to the present as a salesman in a dry goods store.

Physical examination: Heart and lungs normal. Knee jerks absent. Rombergism. Argyll Robertson pupil. In walking there is a slight ataxia. All bones and joints normal except right ankle which presents a large fusiform swelling; no heat or redness. This swelling fluctuates on palpation and gives the sense of being full of fluid, the fluid containing bony particles. Amputation was advised and patient disappeared from observation.

Right ankle: All tarsal bones and ankle joints involved. Astragalus and all tarsal bones anterior thereto disintegrated and fused into one irregular mass. Malleoli gone, anterior upper portion of os calcis destroyed. Detritus on lower surface of os calcis.

CASE 6 (referred by Dr. N. Allison, Washington University Dispensary for x-ray examination, Feb. 17, 1911).—F. E., truckman, single, age 45. In February, 1908, swelling of right knee suddenly developed. The swelling, according to patient, came on over night, without pain, redness, or heat. Patient states that he would not have known there was anything wrong with the knee, if he had not felt it with his own hands. He walked next day without any inconvenience. On the fourth, he noticed rubbing and clicking in the joint. The swelling which now feels bony to touch, has remained, and the knee has almost entirely lost its mobility, requiring the patient to use crutch and cane. The leg is shortened about three inches. He has been treated in various clinics.

Now has all the cardinal symptoms of tabes some of which antedated the arthropathy.

SKIAGRAM, FIG. 6. PHOTOGRAPH, FIG. 7

Right knee. Extensive destruction of lower end of femur. Condyles and patella gone, tibia and fibula displaced outward. Beaking and lipping of tibia. Articular cartilages destroyed. Concavity formed by tibia and a triangular exostosis on its inner aspect in which the femur rests. On each side of the femur are two large masses of detritus which are perhaps remnants of the condyles. On femur, exostoses are seen.

CASE 7 (referred by Dr. N. Allison. The patient was also seen by Dr. Sidney Schwab).—Mr. H. white male, married, no occupation, age about 38, seen April 27, 1909. Family history negative. Previous history: Uncertain infection with syphilis about twenty years ago. Otherwise well, up to four or five years ago when he had gradual swelling of the left knee-joint with much pain. Whether this followed trauma is not known. Since then the knee has developed into a typical Charcot joint, with a degree of hypotonia, fluid, etc. Occasional attacks of pain, some bladder difficulties, and growing incapacity to use his legs. Patient unable to move about without a cane and braces at the knee and ankle to prevent hyperextension. About two years ago went through what was apparently some form of mental trouble, lasting some months, for which he was sent to Fulton asylum.

Patient seems unusually active mentally, over optimistic, eager to get well. Is well nourished, muscular from waist upward. Legs hypotonic, and flaccid flail joint at left knee.

Gait: Spastic, uncertain with marked tendency for the patient to flex the body at the hip until the angle of the body to the legs is near 50 degrees. In this position the patient is able to get about with the left leg slapping down in a very uncertain way. Motor condition: Muscular strength of arms good. Muscles of upper back strong, but owing to hypotonia of the vertebral column there is marked weakening. Ataxia of the hands on complicated movements. No tremor.

Sensory: Marked diminution of response to pain and touch in lower extremities, back and front, and somewhat on tongue and abdomen.

Reflexes: R. Achilles and knee-jerk gone. No Babinski or clonus. R. plantar present; the Oppenheim, triceps, periosteal and tendon, right and left, normal; as are also the pharyngeal, corneal, scleral, and cremasteric. Abdominal present on right but not on left side.

Pupils: No response to light, slight to accommodation, small; consensual sluggish.

The joints affected are the left knee, right shoulder and lower vertebrae. Beginning trophic changes are seen in the finger joints. The patient is able voluntarily to dislocate and reduce the head of the right humerus.

SKIAGRAM, FIG. 8

Right shoulder joint: Subglenoid dislocation of humerus. Glenoid fossa filled with detritus. Some loose bodies in joint capsule. The luxation was effected

voluntarily by the patient just before the skiagram was made.

Left knee: The femur is luxated backward and outward. The patella shows marked proliferation around its border. Much detritus below patella, about external condyle, and at tibio-fibular articulation. Increased density of head of tibia, and internal condyle of femur, which are in close apposition, indicating atrophy of the joint cartilage.

Vertebrae: The fourth and fifth lumbar vertebrae are compressed and fused so that together they are about the thickness of one normal vertebra.

The intervertebral space between the fourth and fifth is gone and to some extent between the fifth and the sacrum, so that the transverse processes instead of

shooting pains in legs for the past twelve years which was attributed to "uric acid and rheumatism." Three years ago his friends noticed that he seemed to be growing shorter and since that time, in addition to shooting pains in his legs, complained of crampy sensations about the hips and thighs, especially on left side. He never had pain in the spine and its movements have been in no sense restricted. For over a year has noted that he is more comfortable when he is lying and that exercise and being on his feet, add to the crampy sensations about the hips. Has recently undergone a course of osteopathic treatment and thinks his trouble has been increasing since then.

Physical examination: The patient is a bald headed individual prematurely grey having a rather cachectic



Fig. 6.

being nearly an inch apart are separated only by a fourth that distance. There is very little detritus. The compression has increased the cross width of the affected vertebrae, and made their shadow denser. There is a slight scoliosis with the convexity to left, most marked at the third and fourth.

CASE 8.—Following is a case of vertebral osteoarthropathy referred for roentgenologic examination by Dr. W. W. Graves, who also contributes the history:

F. R. S., age 42; in seventeenth year, fell from elevator shaft fracturing two ribs and sustaining injury to spine, all the effects of which seemed to pass away in a few months. One attack of gonorrhea in his twentieth year. Otherwise no venereal infection. Married fifteen years ago. No children. Has complained of paresthesia about ulnar border of right forearm and

appearance, is somewhat above the average in physical development and has an abundance of adipose tissue. His trunk is short in proportion to the length of his extremities. The vertebral border of the right scapula is distinctly incurvated; that of the left fairly average. The spinal cervico-dorsal curve is obliterated. The dorsal region is straight to about the seventh dorsal vertebra and from this point downward to the sacrum there is a distinct kynhosis, the convexity being at about the level of the ninth or tenth dorsal vertebra. At this point there is scoliosis toward the right. The crests of the ilia occupy the same horizontal plane and are about equally distant from the axillae. The fold of the skin in the lower dorsal region is deeper on the left and occupies a higher plane than the similar fold on the right. The abdomen is unduly prominent and

it is noted when viewed from the front that the navel occupies a lower plane than the iliac crests.

Patient is able to sway his trunk in every direction but in doing so to the right complains of crampy sensations in the left inguinal and gluteal regions. Torsion of the trunk is easily performed in every direction. He is able to bend forward without flexing his knees while placing the palms of his hands on the floor. In this position both the kyphosis and scoliosis become accentuated and these are diminished when patient



Fig. 7.—Typical Charcot knee. X-ray picture of this knee is shown in Figure 6.

bends his trunk backward. In lying on his abdomen both the scoliosis and kyphosis become somewhat less but do not disappear. There is no rigidity about the hip or other muscles. Nowhere undue tenderness of the spine. Indeed, one gets the impression, especially in the vicinity of the kyphosis, that the spine is much less sensitive than in average individuals. There is slight Rombergism and ataxia of lower extremities. Marked tortuosity of conjunctival vessels. Varnished sclerae. Both pupils are small, the right smaller than the left, and both are irregular in contour, reactionless to light,



Fig. 8.

but the reaction is prompt in convergence. The motor cranial nerves are otherwise intact.

Over anterior surface of upper third of right leg are circular punched scars. The skin is otherwise free from such. Bullet-like indurations of inguinal and epitrochlear glands. Muscle volume about the lower extremities, right equal left. There is no decided weakness in any muscle group. There is decided hypotonia of knee flexors, hip extensors, and extensor muscles of

a spine. Tendon reflexes about upper and lower extremities fail absolutely. No pathological toe reflexes. Abdominals moderately active, equal. Bulbo cavernosus absent.

Sensation is disturbed to pin pricks about the ulnar border of upper extremities, in the distribution of fourth to eighth dorsal roots inclusive, and is practically lost to pin pricks below distribution of the tenth dorsal roots.

SKIAGRAM, FIG. 9

The first, second and third lumbar vertebrae are involved, this portion of the spine being displaced to the right. About two-thirds of the body of the first lumbar remains, the left third being gone. The second and third are fused together and occupy a trifle more than the space which one would occupy. The width of these vertebrae is greatly increased. The second, third and fourth lumbar intervertebral spaces are absent. There is relatively little detritus.

Vertebral cases are relatively rare among tabetic osteo-arthropathies, and very few have been



Fig. 9.

reported in America. In fact I have been able to find records of but two other cases in American reports. One of these was reported by Spiller⁴² in 1902. The patient was a woman, aged 59. The right shoulder, left ankle and left knee were involved, in addition to the vertebral arthropathy.

SKIAGRAM, FIG. 10

The other American case was published also in 1902, by Cornell.² Cornell's case was in a man aged 55. Syphilis at 22; first tabetic symptoms at 47; a lump appeared on his back at 50. The large tumor mass appears to be connected with a scoliosis to the right, and a kyphosis at this point. Palpation shows superficial fluctuation. Bony hardness and small loose bodies slipping

under finger on deep palpation. Deep crepitus and abnormal motility at lumbo-sacral joint. No other joint lesions. X-ray by Baer shows the vertebrae affected between eleventh dorsal and sacrum. There seems to be a destruction of bony tissue along the left side of each vertebra from the twelfth dorsal to the fourth lumbar. The intervertebral cartilages appear to have been destroyed, especially between the last vertebra and the sacrum, where the space seems four times the normal. Large masses of exostoses along left transverse processes from the first lumbar to sacrum. Abscess cavity on right side running

brae with osseous new formations forming bridges between the vertebrae. In one case the second lumbar was reduced in volume.

In Frank's¹⁸ cases (cited by Roasenda) resorption and osseous new growth in the third and fourth lumbar were shown by the rays.

In Graetret's²⁰ and Hofbauer's²³ cases (both cited by Roasenda) the third and fourth lumbar bore the brunt.

In Lejonne and Gougerot's²⁸ cases the eighth to eleventh dorsals were involved.

Roasenda's³⁸ article is so painstakingly written that it deserves extensive quotation. His case

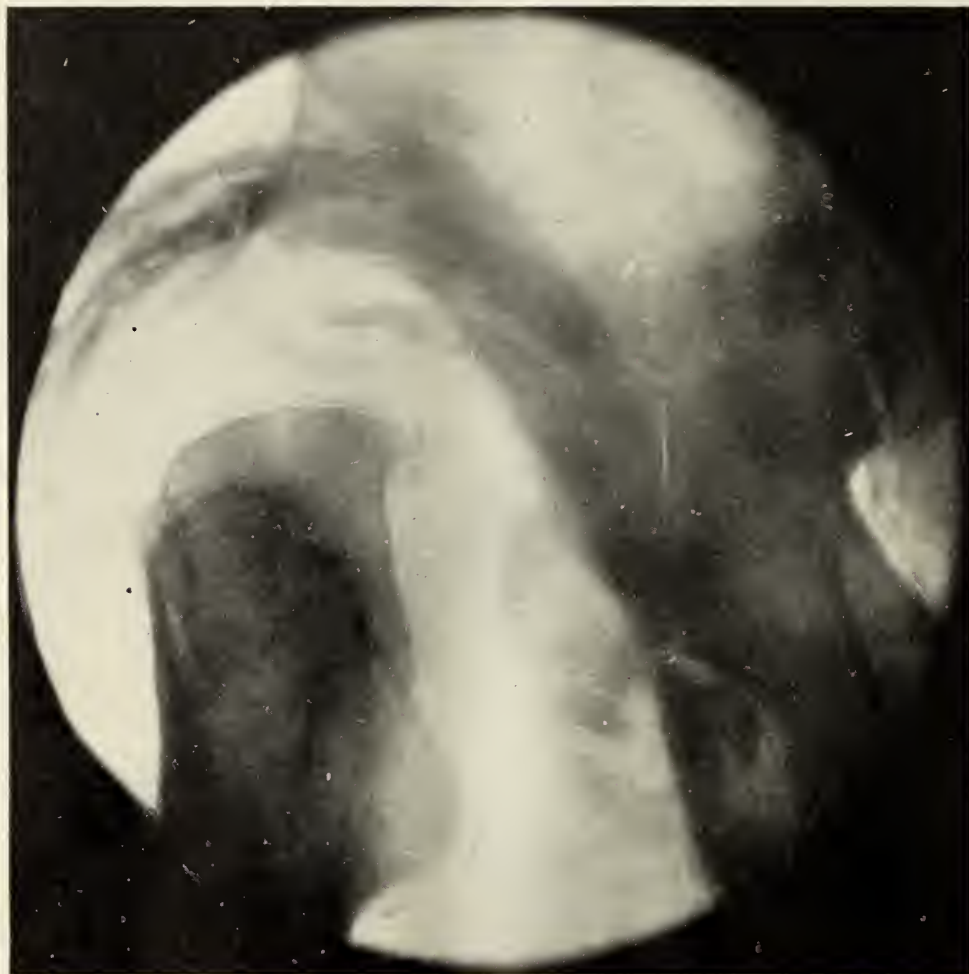


Fig. 10.—Showing a typical Charcot hip with absence of head and neck of femur; capsule containing detritus. Marked exostosis of the principal margin of the acetabulum.

up to third dorsal, and another to left of lumbar vertebrae. The author states that the first case of vertebral arthropathy was reported by Kroenig²⁷ in 1884, who also published three cases in 1888. Of all the cases reported the majority occurred in males. In over one-half there were also other arthropathies.

Of the foreign vertebral cases, Abadie¹ in 1900 collected fourteen from the literature.

In Baduel's² two cases (cited by Roasenda) the skiagram shows rarefaction in the lumbar verte-

was that of a man aged 44. Syphilis at 22; Argyll Robertson pupil, loss of rotulien and Achilles reflexes, etc., but no ataxia nor Romberg sign. Marked lumbar scoliosis with left convexity. Spinous processes of lumbar vertebrae increased in size. Bony tumor at left of column: apparently twice as large as one's fist. Costal borders much lowered. The skiagram shows zones of abnormal transparency in the sacrum and fifth lumbar. The second, third, and fourth are shown as an irregular cylindrical,

amorphous mass with areas of rarefaction and areas of new production.

"My skiagram," he says, "fully confirms Abadie with respect to the pathologic anatomy of osteo-arthropathies of the vertebral column. It likewise established the mechanism through which the effects are not so grave as the lesions might have produced. In all probability, the third lumbar in which the osseous rarefaction had reached its maximum intensity, when it was no longer able to support the weight above would have given way and taken the form of a wedge as Abadie calls it. But, concomitant with the osseous rarefaction, as if preparing to obviate the accident which threatened the stability of the vertebral column, numerous osteophytic deposits grew about the adjacent vertebræ, especially the one above and the one below. These new formations extending in every direction had almost the form of a muff surrounding the worst damaged vertebra, with its most solid wall on the side that would have to furnish the most support. Thus when the stability and strength of the third lumbar became impaired and it gave way under an influence so slight that it would not otherwise feel it, the effects on the patient were not as disastrous as might be supposed."

Summarizing the eight cases here reported there were fourteen joints affected: three knee, four ankle, one foot, one shoulder, two vertebral column, two wrist, one hip.

In five patients, Cases II, IV, V, VI, VIII, one joint only was involved.

In three patients, Cases I, III, VII, more than one joint was concerned.

In two patients, Cases I and II, the diagnosis was made on the skiagraphic findings. In Case I, a competent surgeon had diagnosed sarcoma, and intended to amputate. In Case II, the lesion had been regarded as an old fracture.

In none of the other cases was a diagnosis made until the patients were seen either by a neurologist or an orthopedist.

In six, Cases III, IV, V, VI, VII, VIII, the diagnosis was fairly established before the Roentgen examination.

In all of them the x-ray gave information of value, either by determining or confirming the diagnosis, or by contributing details.

In no case did the joint trouble antedate other tabetic phenomena.

In all except Case III the lesions were well advanced.

In Case III the pathologic changes are shown at an early stage in the wrists.

In all the cases the skiagrams were distinctive and relatively easy to interpret.

The marked roentgenologic features of Charcot joints are: (1) atrophy of the articular cartilages; (2) irregular destruction of bone, often associated in the same joint with (3) irregular

hyperplasia of bone, (4) detached bone masses and detritus, (5) translucent areas.

There are two reasons for the increased skiagraphic translucency of the bone structures involved in tabetic arthropathies, one histologic, the other chemical. Histologically, Blanchard⁷ has shown that there is increased porosity and thinning of the compact substance, a dilatation of the Haversian canals due to absorption of their walls, enlargement of the medullary canal, decalcification in the neighborhood of the Haversian canals, and simple atrophy or fatty degeneration of the osteoblasts. Chemically, Regnard³⁷ has found a diminution of the non-organic elements, especially the phosphates, such that the percentage is reduced from a normal of 66 to 24. Along with this there is an increase of the organic material from 55 (normal) to 76 per cent.

From the investigations of others and from my own experience, the following opinions seem to be warranted:

That with rare exceptions, by radiography alone tabetic osteo-arthropathies may be diagnosed.

That only by the rays can detailed information be obtained as to the extent of involvement in tabetic joints.

That the Roentgen rays will show joint lesions in tabetics where ordinary clinical examination will not, and hence,

That the joints of all tabetics should be skiagraphed (1) in the interest of the patient, (2) in order that the earliest signs and manner of onset of these arthropathies may be further elucidated. I regard this as a most promising field for Roentgenologic research.

That all joint lesions, except the very few in which the diagnosis is beyond doubt, should be examined with the Roentgen rays.

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MODERN MEDICINE AND MEDICAL EDUCATION *

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In expressing the thanks of myself and colleagues for the honor of meeting you this evening, I realize that the compliment is paid not to us personally, but to the institution we have the honor of serving, and, beyond it, to the cause of medical education.

There is a growing tendency toward the simplification of medical practice and toward a franker and more natural relation between physicians and the rest of the world, called for short, but with no idea of disrespect, laymen. There is also an even more conspicuous movement for putting medical education in a more public position than it has held hitherto; for taking it out of the semi-private or wholly private relation it formerly held and placing it in the brighter light of university administration.

Since medicine is an art that sooner or later comes home to everyone, it would seem eminently right that the education of medical practitioners should be just as open to those interested in education, just as much a matter of full and intelligent criticism, constructive as well as destructive, as any other branch of education. Moreover, the relations of medical science to the public at large, or to the state, are rapidly becoming more extensive and important, and also occupy more and more the attention of all who are interested in public welfare. It is, therefore, I assume, a happy omen that in this city, where so much has been done for education, so conspicuous and influential a body as the Commercial Club has invited members of the medical school of the Washington University to address it.

To one who begins to form some acquaintance with the subject it seems remarkable that medical education in the past, in this country, has been obtained in private schools free from all supervision as to means or methods. Until recently nearly all medical schools were joint-stock affairs, in some cases very lucrative to the stockholders. Even if they had university titles their connection with the so-called university was purely nominal. It would take too long to explain why these things were so; one important factor was the entire lack of any control over medical study by the authorities. That the state in any part of the Union has begun to regulate medical practice and medical education is due wholly to the initiative and self-sacrificing efforts of the medical profession, and not to the public, the executive or the legislature.

For a long time the only notice the legislature or the courts took of medical schools was by making difficult the study of human anatomy and by making necessary the work of the body-snatcher. Even now so little regulated is the organization of

medical teaching in most states that a group of men—who need not even be physicians—can get from the authorities for a trifling sum a charter for conducting a medical college and giving the right to confer medical degrees. These degrees still entitle the holders to practice medicine, though the field for such practitioners has been very much narrowed. So little is the character of the institution considered that the charter may be bought and sold as easily as a bill of lading for cotton; and it happens not infrequently, and has happened even recently, that the charter of a school once reputable may be used as a diploma mill where degrees are sold with as little ceremony as a suit of ready-made clothes.

The results of the older methods must be considered with reference to the state of medical knowledge when those methods were established and should not be summarily condemned, as they sometimes are. Great men taught and great men in embryo studied then, as now. In the better schools many either had college educations or sound training as far as it went. They did not satisfy themselves with the minimum course but took at least one more year, worked in hospitals or laboratories in the long vacations, or with practitioners, served as interns in hospitals for one or two years and worked as long in the endowed and well-organized medical schools of Europe. We can never forget that some of the greatest practical advances in medicine have been made by men educated in this way, and we should never forget, here in St. Louis, the many who gave time and money and fame to the cause of medical education. It would be invidious to mention them now, but it will be well for us to preserve their memories to future generations as those of men who played well their part.

Those who prefer the old order sometimes obscure the reasons for lengthening the period of medical study. It is asserted that medical colleges exact greater preparation and longer study from an unfair desire to restrict the number of practitioners. It does not require much investigation to show the fallacy of such statements, but I prefer to call attention to some positive reasons in favor of the more extensive course of study.

Medicine is a very ancient art. Its traditions go back to the dawn of civilization; its literature free from mystical traditions very much older, to the brightest era of Greek culture, the period of Aristotle, Plato and Pericles and the great poets, dramatists and philosophers. In one of the chapters of Hippocrates that still contains much of practical value, we find the immortal axiom "life is short but art long." Medicine is essentially a growing art and so keeps forever young, advancing with each gain in knowledge of every other art and science. It grew with greater rapidity after the discovery of the circulation of the blood by Harvey in the beginning of the 17th century. It was accelerated still

* An address delivered by invitation before the Commercial Club of St. Louis, April 11, 1911.

more by the discoveries in anatomy in the 18th century and more rapidly still by the careful and intense study of disease in the live and dead body that developed in the stirring times of Paris in the Revolution.

It is worth noting that one of the factors that forced the development of medicine on Paris was the reorganization of the hospitals. Before the Revolution these were merely asylums in which the grossest neglect existed. Formerly four or five patients were sometimes in a single bed, sick, dead and dying together, but when the medical service of the Republic was reorganized, the hospitals were renovated and the patients were distributed so as to get the best service from the attending physicians and surgeons. Instead of dividing the service into equal parts and assigning the patients in rotation, as one might have expected in a democratic community, the patients were classified according to disease conditions and the most important diseases were handled by the men who had the greatest skill in their recognition and treatment. The result was a great increase in the knowledge of these diseases, notably consumption, and diseases of the heart and blood-vessels, and accordingly an increase of skill in the physicians who became the teachers of others equally or even more skilled, and in a short time made Paris the center of the medical world.

But all former gains were made relatively insignificant by the impetus given to medical science by the discoveries in natural and physical science of the last seventy-five years—a growth that becomes more intense and rapid as it continues, and that startles us with undreamed-of discoveries. The discoveries in anatomy, such as the cell doctrine and the process of cell multiplication, of physiology, of chemistry, of the microscopic vegetable and animal organisms that cause the most important diseases, are really no less wonderful than the discoveries in electricity and physics, of wireless telegraphy and Roentgen rays and the principles of aviation.

It would be well perhaps to mention some examples that show us how recent some of the most important medical facts are. Most people who have had to consult a physician have been percussed, "sounded." It was known long ago that the different parts of the body resound differently when struck, but it was not until 1761 that Auenbrugger formulated the facts regarding percussion of the body. Even that, however, had no immediate effect and it was not until Auenbrugger's discovery was itself discovered, translated and enlarged by Corvisart, Napoleon's physician, in the beginning of the last century, that percussion had a definite place in medical technique; and it has been more and more elaborated since then.

Auscultation, or the examination of different organs by listening to sounds made by or in them, is even more recent, having been discov-

ered and developed into a useful art by another great French physician, Laennec, in 1819. Some of the most familiar diseases were curiously late in receiving recognition. We find excellent descriptions of some diseases like typhoid and many lung diseases even in Hippocratic writings. Pneumonia and pleurisy in a great majority of cases are easy to distinguish at the present time, but were not separated until the early part of the 19th century; and it was during this period that diseases of the heart were separated from those of the lining membrane of the heart. Measles and scarlet fever which, in typical cases, can be distinguished by an experienced mother, were not differentiated until a little over 200 years ago, by Sydenham, and it was only in the end of the 19th century that German measles was split off from the others; and more recently still another variety, known as the fourth disease, has been defined. Bright's disease is now a household word, yet it is less than 100 years since Bright described the conditions now called after him. In fact, before that time the kidneys were rarely examined at autopsies and never as a matter of routine.

When the field of discovery by observation alone became pretty thoroughly cultivated, experimental methods were applied to medical investigation, and this has been in medicine, as in other sciences, the greatest aid to the advance of knowledge. These experimental methods were practiced with great success as far back as the 18th century, especially by John Hunter, and in the beginning of the 19th century by various brilliant Frenchmen, and became most highly developed along with discoveries in allied sciences after that time.

It would take a long time to give only a partial list of the important discoveries made in this way. Among the earliest were those by which the functions of the brain and spinal cord were assigned to definite areas in those organs. These discoveries enabled diagnoses to be made and surgical operations to be carried out for the relief of these conditions, that approach the accuracy of the engineer or architect. An even more interesting field of experimental investigation is that surrounding the so-called ductless glands.

It has long been known that scattered around in various parts of the body there are organs of varying size and appearance whose functions were for a long time unknown. As an example of our ignorance, I may point out that the largest of these organs, the thyroid gland, which lies in the lower part of the neck, was supposed by many to be for no other purpose than to give the neck a beautiful appearance. Diseases of this gland have long been known, especially in the form of goiter, which is endemic in various parts of the world. Sometimes these tumors were removed for purely cosmetic reasons, and in some cases patients underwent curious mental and bodily transformations, so that they resembled

people known in various parts of the world as cretins, or congenital idiots. A long series of experiments on sheep, goats and monkeys showed that the thyroid gland had important functions: that it is, in fact, essential to life and health and that its complete destruction or extirpation produces a condition now well known as myxedema, while partial disease or functional disorders produce many and varied—and sometimes very important—mental or physical alterations.

It would seem that anatomy, which has been studied so enthusiastically for so long a time, could not leave room for any further discoveries, but work on the thyroid gland revealed the existence of other organs of the highest importance to health lying in and near the thyroid itself. The remarkable advance brought about by the study of the thyroid has led to extensive study of all other ductless glands and we have had revealed the existence of a number of very important disease forms, some of which were known but not understood, and others which had been entirely overlooked. In many respects the field has only begun to be cultivated.

In short, medicine has now become clearly recognized as a branch of the great field of biology—the study of Life. Since the investigations that followed Darwin's discoveries have so enormously enlarged the field of biology, so the methods of increasing the knowledge of medicine have become more numerous and more complex. One further example of this may be mentioned: the study of animal parasites. For a long time the large intestinal worms were looked on as merely freaks, of no significance or practical importance. The study of zoology has not only changed their great medical and economic importance, but has revealed the existence of still smaller animal parasites, whose relation to human medicine is of the most far-reaching importance. It is, perhaps, enough now to mention the *Trichina spiralis*, formerly supposed to be merely a harmless parasite of pork: the hook worm, and a great number of minute parasites which cause malaria, dysentery and many other diseases of warm countries.

The discovery of the syphilis parasite illustrates the difficulty surrounding the investigation of its origin. Here is a disease, perhaps the most interesting of any that ever affected the human race. Scores of men had worked for years at the discovery of the cause; more than a hundred supposed parasites were found, which one by one were shown to have no significance, and it has only been a few years since the real parasite was found, not by a physician, but by a zoologist, and found by a method of simplicity that adds to the wonder of the discovery.

Chemical investigations were made in connection with diseases as soon as chemistry evolved as an investigating branch out of alchemy. Many discoveries of great theoretical importance, and some of fundamental practical importance, have

been made, such as those in connection with the presence of sugar, albumin and many other substances in the urine, but from the advances in chemistry in the last quarter of a century it is probably safe to say that the field has barely been opened, and that far greater additions to the knowledge of chemistry will follow in the near future.

All these discoveries have helped to make us understand better the manifold phenomena of disease; to recognize more accurately what goes on in the sick man by means of examination by the unaided senses, by microscopic examination, by chemical tests, by subtle tests of blood and body juices. By their aid we not only recognize bodily conditions more accurately, but with their assistance we have been able to take more certain measures for the relief of illness and for restoring health.

Medicine is not only an old art and a growing art, but it is also a critical art; it has the skepticism of age and the credulity of youth. If at times credulity seems to be unduly conspicuous, as in the early days of a discovery like that of tuberculin, this is really due to a praiseworthy belief in the possibility of the triumph of hope over experience. Sometimes skepticism seems unnecessarily severe. Many of you who have experienced relief from remedies brought to your notice through the advertisements in trolley cars, on fence rails or barn roofs, wonder why your family physician does not use the same things, and too often assume that he is narrow-minded and bigoted. This is really not the case, however. The physician knows that all these remedies are far from being new; they are simply old and well-known preparations. The family physician uses all of the essential ingredients in them, and in as palatable form, every day. When used indiscriminately they have their time, due to advertising, but the vogue soon passes. If they even relieve symptoms, severe enough, no doubt, to the sufferer, they always entail the danger that something more serious may be back of the symptom, and that the individual and not the symptom needs treatment.

A few words regarding another feature of modern medicine may not be out of order. It is often supposed that physicians have a class prejudice against certain systems or theories of healing, prejudices that are not greatly to their credit. It is true that we object to systems of disease or of treatment, because a long experience has shown that such things fail. Many men in the profession have devised systems and many will continue to do so, but the cool observer of Nature and of medical practice will look critically on these no matter from whom they come. To apply the principles to actual facts, let me consider first the system that is based on the action of the mind on the body. The medical profession has no prejudice at all against the application of the principle, in that from the

earliest days we have had traditions: at all times the most successful teachers have taught them, books have been written on the subject and the most acute and highly scientific minds of the 19th century devoted a great deal of time to their elucidation. If the practices of Christian Science have been objected to, this was not at all due to the personality of the founder. We have never been ashamed to accept vaccination from a dairy maid, but when we are told in an age of steam and electricity that a toothache or broken bone or consumption is not actual but merely mental error we believe that this is not a new truth, but is just as fallacious as similar errors that have come and gone through the centuries. When, after the cause of typhoid fever has been definitely established, we are told that this disease and all others are due to displacement of bones and nerves, we object to the doctrine; not because of the personality of the discoverer but because an amount of work infinitely greater than that of all the system makers has been devoted to the investigation of the nature and cause of disease and has shown that the theory of osteopathy is unsatisfactory. If we are reminded that practical benefits obtain from the therapeutical applications, we know that the same manipulations have been known from the time of Homer and have been used all over the world, and have been thoroughly worked up by scientific men within the last fifty years. That massage as well as the influence of suggestion have not been used as much as they deserve is another question which may be understood by reference to the rapid growth and complexity of medical study.

Obviously all the advances in science and the methods of study have caused a revolution in the training of medical practitioners. When diagnosis was largely made by the consideration of a few symptoms, the memorizing of groups of symptoms was the chief part of medical study. The advantage of experience could only be gained by time and opportunities impossible for an undergraduate. Now, examinations are made by applying technical methods to the body and its fluids, its secretions and excretions. These methods cannot be learned by lectures and reading alone. Moreover, they must be mastered so as to be almost automatic. Formerly in a case of croup the physician revolved a set of statements regarding varieties, and in the majority of cases either came to the wrong conclusion or no conclusion at all. Now, diagnosis, on which proper treatment depends, must be made by local examination and the expert manipulation and inspection of some of the diseased tissue, or some of the secretions of the patient. If we would learn whether certain convulsions are due to kidney disease, instead of something wholly different, microscopic and chemical examinations are essen-

tial. In severe malarial fevers the patient may be snatched from certain death by the examination of the blood and treatment based on the result. In the commonest of all diseases, tuberculosis, the exact recognition may be advanced many months by the detection of the tubercle bacillus. Examples might be multiplied, but the important fact is that in order to utilize the present knowledge of medicine, the student must have a training that will fit him to act quickly and obtain results of certainty, impossible not many years ago. Anything else would be dishonest in the present state of knowledge. This is one reason why many months of training in practical methods are necessary, instead of the briefer theoretic training of less accurate days. There is another reason: the treatment of disease is also much more positive and accurate, in many and various conditions, than formerly. A host of diseases that only a few years ago either killed or led to hopeless invalidism, often without being recognized, are now amenable to surgical treatment. It is enough to mention appendicitis, gall-stone disease and many diseases of the stomach and pleura. But in order to treat these—and they may fall under the care of the most recent graduate just as easily as under that of the oldest practitioner—the physician must again be master of a large array of technical methods, of asepsis in the preparation of the patient, hands and instruments, of cutting tissues, of tying knots, of seeing and feeling slight changes accurately under trying conditions, and many other details. These can be learned only by practical exercise, for the progress of art has made it simply criminal to leave any of them to be learned as a result of experience on patients. I do not mean to give the idea that the undergraduate must be expected to know everything. There is still ample scope for experience, but the essentials, and especially the essentials of manual technic necessary in every-day work must be acquired in a medical school.

All these methods have led to the necessity of reconsideration of the economic features in medical practice. When diagnosis was made by hearing a few complaints mentioned, looking at the tongue and feeling the pulse, it was easy for anybody to have the most thorough kind of an examination made in a short time: but when diagnosis is made by the application of many delicate methods, requiring expensive apparatus, the possibility of applying it universally is evidently in need of readjustment. The same problem applies to treatment: when a typhoid fever patient needed nothing else but to be kept quiet and given certain food and medicine at more or less definite hours, the requirements were as easy to meet in a hovel as they were in the most comfortable home or hospital. Now that we know that the patient's chances of recovery are many times

better by being treated under the care of skilled nurses, with a regulation of diet according to the most minute study of the patient's condition, with skilled attention every hour of the day and night, in order to avoid complications, which are more dangerous than the disease itself, the condition is evidently different.

The change is most striking in the case of diseases like diphtheria. Formerly a diphtheria patient was given certain medicines and in some cases was subjected to surgical operation, the result of which was often disappointing. At present it is essential that every patient be treated with the well-known antidiphtheria serum, and patients so treated almost always escape the need of an operation, but the serum necessary for the treatment of such cases at ordinary market rates may cost from \$60 to \$80. Of course, the patient and his relatives have no such sum, yet his value to the community is many times that, and it would seem that in every part of the country serum should be furnished at the expense of the community; but obviously this can only be done by recognition of the requirements of the case.

Not only in the practice of medicine, but also in the education of medical practitioners, extensive plants are necessary. We need extensive laboratories thoroughly equipped with apparatus and a staff of well-trained instructors to begin the education of the young physician. In hospitals equally extensive plants are required for diagnosis and treatment. There must also be a large staff of experts to carry out the various manipulations necessary in the examination and treatment of the sick. It would seem that nothing could be more practical than the combination of the medical school and the hospital, and, in fact, where such combinations exist their benefits are known to everybody who cares to consider them. Many steps in the examination of the sick can be made by students who have already passed their scientific work and are in the position of learners in the parts more directly related to the sick individual. The methods of still further recognizing disease and treating all forms of disease are naturally learned in the various positions the young student occupies in the hospital.

Such an institution serves the community in many ways besides the production of doctors. It renders economic service in the various branches of medicine, furnishes a training school for experts in all of the special branches and it permits economic treatment to those who would not be able to supply themselves at the important time.

While it cannot be expected that every hospital should also be a complete medical school, the most successful must be those that serve as part of a medical school; but the others should be no less carefully and scientifically administered.

Washington University Medical School.

MODERN MEDICINE AND MEDICAL EDUCATION *

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Medical education is now discussed to an extent far exceeding anything in the past, and this change has come about largely in the last five years. Before that, it was from time to time a question of local interest only and concerned alone the physicians of a community when some change or innovation was contemplated.

I take it that a body of laymen would have formerly submitted to after-dinner remarks on professional education with hardly more pleasure than they would have submitted themselves to surgical ministrations. Gradually, however, attention throughout the whole country has been focussed on medical education. The publication last year of the bulletin on this subject by the Carnegie Foundation was only a sign of the general interest, though it did more to point out the deplorable condition of affairs and show to those responsible their duty than any other thing, and it did more. It aroused an interest in the matter among the intelligent members of communities, impressed it on them that the subject was not one of academic interest alone, but that medical education concerned them vitally as individuals. And this last was particularly fortunate because it has been well said that "a right education of public opinion is one of the problems of future medical education."

From all the smoke of the discussion, and there has been much, and it has been lighted by flashes of threats of libel suits, the retort discourteous and the lie direct, one thing stands out prominently. It is admitted by all; and that is that medical education as a whole in this country is very bad, it is antiquated, it is incomplete. By comparison with France, Germany and England we suffer greatly. This does not, of course, mean that some of our institutions are not as good as those to be found abroad, but we have such a number of schools of inferior grade, some of them bad in the extreme, that they depress the whole average to a low level. Those also most closely concerned with the schools of the highest grade find much to criticize in their methods, ideals and resources.

We may start then with the admitted premise that in even our best schools there is much to criticize and improve and in the worst schools much to destroy, and ask why have we such a number of low-grade schools and why is medical education unsatisfactory even in the best?

The answer to the first question explains the genesis of the proprietary medical school. They were founded because they were paying concerns. The first medical instruction in the country was given under the authority of the college or university. In 1765 Shippen and Morgan began a

* An address delivered by invitation before the Commercial Club of St. Louis, April 11, 1911.

department of medical teaching in Philadelphia which shortly became a part of the University of Pennsylvania; in 1768 the medical department of Kings, later Columbia, College was founded, and in 1783 Harvard, in 1798 Dartmouth, and in 1810 Yale opened schools for the study of medicine. Medical teaching then began as it should and the schools were branches "growing out of the living university trunk." But early in the last century began to grow up schools without university connection and they multiplied so fast that they soon dominated the whole field and their type became the type of the whole. It is very true that in the beginning more schools may have been necessary, that universities were not numerous or enthusiastic enough or so situated as to maintain them and that a real public service was done by creating a new school. But the number rapidly swelled beyond any reasonable proportions. They were founded in the majority of instances because they were directly or indirectly of pecuniary advantage to those connected with them and in the beginning this advantage was great. The cost of maintaining a school was next to nothing and the gross receipts were nearly all net receipts. Professors were few and assistant instructors an unnecessary and expensive impediment. The heads of departments in the order of their seniority or according to the importance of their chairs or their control of the stock, divided the proceeds.

Not so many years ago the professors in one of the New York schools received \$10,000 each for delivering year after year the same lectures to a large, heterogeneous body of students in a huge amphitheatre. Small wonder then that the number of schools grew, because if the soil in other localities was not so fertile and the direct product so valuable, there were by-products in the way of consultations, which were open only to those of professorial degree. It was therefore as inconspicuous and disadvantageous for a medical man to be without a prefix of professor to his name as in these days it would be for the champion bootblack or barber. Hence it came about, as Mr. Flexner said in his report, that "whenever and wherever the roster of untitled practitioners rose above half a dozen a medical school was likely at any moment to be precipitated."

Surely something more than an inspiration to teach is required to explain the creation in a little more than a century of 457 medical schools in this country and Canada. Of late the number generated has shrunk almost to *nil*, but we still have almost as many schools as the rest of the civilized world. There has been a high mortality in the last year among them. The explanation is easy. Medical education has ceased to pay.

The argument formerly much used to apologize for the formation of a new school, that men arose with new truths to tell, has long since been worn threadbare. There is no longer any neces-

sity for a voice to cry in the wilderness—a medical prophet with a mission and a message to tell can tell it to the most cultured audience and in the most effete environment. There is no danger that he will not be heard.

There is every reason why the proprietary schools should die and they are dying rapidly. May their shadows continually grow less.

With the better medical schools and with those with university connections there have been four factors tending largely to prevent the consummation of the best ideals.

The first of these has been the enormous increase in medical knowledge and consequently of what had to be taught. The subject has constantly been running away from the teachers. In the last fifty years medical knowledge has advanced more than in all the other centuries of which we have record. It has changed from empiricism to scientific fact and from vague surmises to solid information. Small wonder then that the demands of to-day do not satisfy those of to-morrow. A curriculum modern and even advanced becomes hopelessly antiquated in ten years.

Nathan Smith founded the school at Dartmouth in 1798 and for twelve years was practically the entire faculty and for those times a very able one. He taught all the subjects and practiced all the arts of medicine. He was, as a man in my native New Hampshire village now calls himself, an all-round specialist. But the diagnoses of that time were simple, were arrived at by feeling the pulse and looking at the tongue, and people therefore succumbed to simple complaints such as an ague, a plethora or a wasting.

The Johns Hopkins or Harvard of to-day is quite another story. They have 150 professors and instructors, the tendency is constantly toward specialization forced by the demand for greater efficiency and by the increase of a subject beyond one individual's capacity.

One surgeon devotes all his time to the localization of areas in the brain and to operations for the removal of tumors and other diseased portions. A narrow field one might say; yet in consequence of this he is able to detect disease and cure patients which no other man, unless with a similar training, could do.

A physician devotes his time to photographing on a rapidly moving film the deflection of a string one ten-thousandth of an inch in diameter, which deflection is produced by the electric currents generated in a human being's heart; and these currents can be carried if necessary by wire from the hospital to a laboratory a mile or more away. Einthoven, who invented this wonderful instrument, knew that currents were generated by the heart; they had been recognized fifty years before but there was no convenient way of recording them. With the knowledge of a trained physicist he calculated the refinements necessary to accomplish his desired results; on the basis

of his calculations he constructed his instrument and it did what he asked of it.

With this and other instruments can be told what particular part of the heart is diseased. The examples could be indefinitely expanded but one may see from this how modern medicine takes to itself the province of practically all the physical sciences and produces results by methods of investigation which at the outset appear to have nothing whatever to do with the human frame.

This is the process that has made the field of modern medicine so vast that to traverse even a portion of it no one has time to stop for breath.

Oliver Wendell Holmes was professor of anatomy and physiology at Harvard some fifty years ago, and he disposed of the subject of physiology with completeness and finality in four lectures. A comparison of these four hours with the 250 demanded by the curriculum of to-day for this same subject tells better than words the task and the perplexity of those teachers passing through the transitional stage. It has been similar in many other lines, and subjects entirely unknown fifty years ago have become of paramount importance.

Surgery, the oldest of the medical arts, at that time chiefly confined to patching up broken and dislocated bones and lopping off diseased extremities, now invades with complete unconcern all nooks and crannies of the body and attacks even the brain and the heart itself.

And in a similar way it has been with the years devoted to study. In the days of Nathan Smith one year was deemed ample, in those of Oliver Wendell Holmes two, in 1884 in New York state three years were made compulsory and only ten years later a fourth was added and now there is discussion of a fifth. It may be seen that the circumstances have been somewhat extenuating even if we grant that all possible has not been accomplished.

The second drawback has been and is the greatly increased cost of medical instruction. As I have indicated, in the beginning it was a paying business and the \$100 of each student nearly all went to profit. The college furnished an amphitheatre and nothing more. No foundation was required and none provided. Universities were glad of a medical connection to round out their list of departments especially as no drain was made on their funds. But in the last thirty years what a change! Now the hundred dollars of the student is a drop in the bucket and even if that fee be trebled it is only a percentage of what the student costs the school. In the best institutions the cost per capita is anywhere from \$600 to \$750 a year, practice economy how one will. The necessity for laboratories and their trained workers with the equipment and the large number of teachers of various grades has wrought the change. The cost of heating and lighting the anatomical building in Munich or of properly

conducting one department in our best schools is more than the total income of 50 per cent. of the medical schools in this country. Hence it is that only those universities heavily endowed can support a school on its proper plane and for this endowment they are compelled to turn to the communities in which they are situated. This is why one of the problems of medical education is a right education of public opinion. Without proper support the high grade medical schools cannot exist. In return for the aid they receive they give back to the community the best they can in the training of efficient servants of the sick both the wealthy and the poor, in the safeguarding of the public health and in the development of methods of prevention, diagnosis and treatment that are of benefit to the world at large.

The third factor more or less interfering with advancement has been partly the result of the second and is, that men engaged in teaching have been, in the majority of instances, busy practitioners to whom practice was the first and important consideration and teaching secondary. It could not have been otherwise. When the laboratory branches began to assume their present dignity and importance, it became very evident that practitioners could not satisfactorily become their heads. Uninterrupted hours of work and particular training were necessary, and thus grew up the specialized body of laboratory men. To them we owe much, not alone for their achievements, but for their demonstration by their activities and influence that the teaching of medicine is a profession and demands the teacher's best time, thought and interest. This applies not only to the laboratory branches, but to the clinical branches as well. Each particular subject has become so large that in order to keep abreast of the times and conversant with recent advances, a teacher must constantly be a student and play his part with his own hands at unraveling the knotty problems of the day. The demands of active practice leave scant opportunity for this and many a man ends his years of teaching with the same point of view with which he began them. This was well exemplified by the professor in an extinct medical college in this city who resigned full of years and indignation because microscopes had been introduced into the school. Such an innovation (his own language, however, was somewhat more powerful) was not for him; he had always been contented with what he had seen with his naked eyes and was firmly convinced that others as well should be.

The change of sentiment in regard to teachers of medicine has been very rapid and the demand for men competent to fill departmental chairs embarrassing, as there are by no means enough trained men to go round. This dearth is remarkable when it is considered that twenty years ago there was practically no demand for such men. I studied at a medical school where there was not a single full time professor and in that same

school to-day there are few who are not. It is not surprising therefore that many departments throughout the country are allowed to go on in an unsatisfactory way because proper heads for them cannot be obtained.

The fourth factor has been the very prevalent lack of hospital facilities. This is a point that cannot be overemphasized for, looked at by and large, medical education has been deficient less in the presentation of facts than in their application, less in the forced feeding of predigested knowledge than in the demonstration of how to use it. A student may be full of text-book information and be unable practically to apply a word of it. The training how to use in the hospitals and dispensaries the knowledge gained in the laboratories is usually the weakest part of a curriculum and without this training no one can be even a mediocre physician unless he obtains his practice and experience from those who pay him to cure them. In pity for his friend Goldsmith the unsuccessful physician, Samuel Johnson said: "A physician in a large city is the veriest sport of fortune: we employ him knowing not his excellencies and we discharge him knowing not his deficiencies." But as much might be said for the unfortunate patients who employ and discharge physicians knowing little or nothing of their professional skill.

The young physician has usually no opportunity to grow up to his work. He begins with the most serious responsibilities. The first thing he is called on to decide may be a matter of life or death.

It is sometimes urged that medical education is too time-consuming and costly and that we can get along with less. It is the low-grade school that urges this. What they offer in return, to give an actual example, is something like this. Doctor X is professor of obstetrics in a low-grade medical school. He bought and therefore owns his seat. Two years ago he taught the subject to forty-six students. Six of those students actually attended one obstetrical case, the other forty did not. Nevertheless they received diplomas and went out as qualified to practice obstetrics among poor farmers' wives who would call them to attend and assist at what they had never seen. It is not a pleasant thing to contemplate. Surely the product of the medical factory must be as finished as can be.

But it may not be amiss to point out that great as is the generosity and practical philanthropy of those who throw open the doors of hospitals to medical teaching, the advantage is not entirely one-sided or the medical school the only party that benefits thereby. It is the general experience that nowhere is the treatment of the sick so satisfactory as in those hospitals with university connections. The medical staff is usually better organized and works in greater harmony and the equipment is more modern and complete. For these reasons the patient fares better and also

because there can be no routine, cursory examination with a group of intelligent students asking continually the how and the why. This compels accuracy in diagnosis and treatment. Dr. Keen has said of his hospital experience that never was he so mentally alert and active as when he had a pack of hounds pressing at his heels.

We have had the honor of being asked to take part in the reorganization of the Washington University Medical School. What we shall strive to do is reasonably plain. We shall attempt to teach our students the laboratory subjects on which medicine rests as completely and fundamentally as we can. The well-equipped laboratories that are planned will make this possible. We shall attempt to bring them in the last two years into close contact with patients in the hospitals and thus enable them to become trained in the detection and treatment of disease. The fortunate affiliation of the Barnes and Children's Hospitals with the university will greatly facilitate this.

But there is more to be done than stuff a student with information too soon to be forgotten. It is vastly more important to teach him to think for himself. His whole life should be one of study and he will soon be away from the preceptorial apron-strings.

Medical education should not end with the attaining of a degree or the completion of a hospital internship, a point at which unfortunately it usually does stop in this country.

Those best qualified should be encouraged to go on in the laboratories and hospitals investigating, studying and teaching at first in minor capacities, but gradually working up to positions of greater influence and responsibility. Only in this way can be trained a body of men capable to become heads of departments and to occupy places of authority, something that the whole country now earnestly requires and demands.

This, then, is our opportunity, our duty and our privilege, to teach the student in the schools and hospitals to be a capable, earnest, self-reliant and safe practitioner of medicine and to encourage those best qualified to train and teach others. In this way we hope to do our share with the other forces working for the betterment of medical education.

Washington University Medical School.

LANFRANCHI *

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The military expeditions under the banner of the cross which were undertaken by the Christians of Europe for the recovery of the Holy Land from the Mohammedans entailed an enormous loss of life and treasure, but they stimu-

* Read before the St. Louis Medical History Club, April 27, 1911.

lated commerce, brought about a profitable interchange of ideas between the west and the east and furnished unusual and great opportunities for observation in medicine and surgery.

Italy was the chief beneficiary of the advantages which flowed from the transport of large armies to and from the Orient. The great number of the sick—victors and vanquished—wounded and diseased who needed attention, fortunately for the advancement of medicine were gathered together in a country and at a time when rapid strides were being made in the progress of the science and art of healing. Many universities were being established which conferred academic degrees, libraries were founded and of necessity there were erected hospices, lazarettoes and hospitals. The lively commercial intercourse with the east, carried on by way of the Italian harbors, brought with the soldiers and the merchandise leprosy, which spread extensively throughout Italy and made provision for the isolation of the lepers imperative; and the plague decimated both the armies of the crusaders and the people through whose countries they marched.

The Italian surgeons of the Middle Ages may be grouped under two divisions: first, those who represent the school of Salerno, Gariopontus, Petroncellus, the woman physician Trotula, Roger, Roland, the Four Masters and Jamerius, all of whom lived toward the end of the 12th and the beginning of the 13th century. Although Arabic medicine was known in Italy through translations at the beginning of the 13th century, these authors give but casual intimation of it. Roger's was the first western surgery published, and for a long time, together with the commentaries on it by Roland and the Four Masters, was the text-book for surgery in Italy.

The second group, living in the 13th and at the beginning of the 14th centuries, followed the teaching of the Salernian school. We find among these authors, however, consideration of the doctrines of the most important Arabian writers—although the latter differed but little from their Greek exemplars—so that their designation as "Arabists" by Mare Aurelio Severina is justifiable. Most of the surgeons of this really post-Arabic period still further developed the phantastic and absurd methods of their Arabian predecessors. Then appears a group of independent clinical observers whose writings were epoch making and showed the way in the direction of the more rational interpretation of diseases and the treatment of injuries.

The most prominent of this group of North Italian surgeons are Bruno da Longoburgo, Hugo Borgognoni da Lincea and his son Teoderico Borgognoni, Guglielmo da Saliceto, Mondino di Lucei and Lanfranchi.

Italy for many reasons led in literature, in the arts and in the sciences, and especially in medicine and surgery. Then came her downfall. In

the onward and upward course she was outdistanced by her neighbor to the north. The leadership was transferred to France.

The transference of the leadership in surgery from Italy to France was one of the most consequential occurrences in the history of surgery. At Salerno, and later on at Bologna, the teaching represented the then existing knowledge and was unprogressive; but the removal of the "Holy See" from Rome to Avignon laid the foundation for conditions which made it possible for surgery to progress and flourish in France and to become correspondingly debased in Italy, and the strongest impetus to this transference of advanced surgery was given when Lanfranchi was expelled from Italy and emigrated to the land of the French kings. How low Italian surgery had sunken is shown by the advice given by Gentilis a Fulgno to the people of Padua at the beginning of the 14th century who counselled that twelve young physicians be sent to Paris for the purpose of receiving their surgical training.

Concerning Lanfranchi's life we have no data which could serve biographic purposes. It is proper to assume that he enjoyed the scholastic training of his day, and he must have been proficient in the languages as is shown by the superior style of his Latin composition. His reading was extensive for besides Hippocrates, Galen, Aristotle and Alexander, he quotes the Arabian authors and those who immediately preceded his own time. He died about 1236.

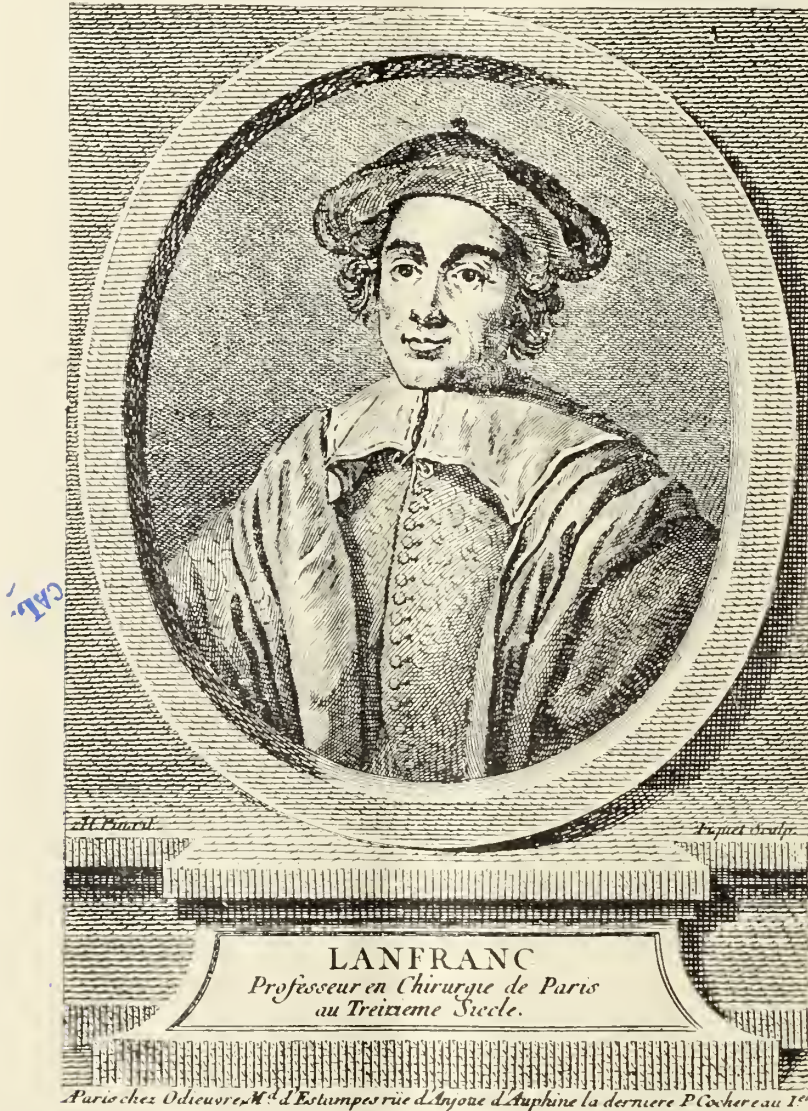
Let us briefly review the work of this Italian, who is not improperly called the father of French surgery.

Lanfranchi—Lanfranc de Milan—Lanfrank, was a native of Milan. He is said to have been a scion of an old family of Pisa. He was a pupil and faithful adherent of William of Saliceto. He successfully practiced his profession as a physician and surgeon in Milan. He took sides in the quarrels between the Guelphs and Ghibellines and was expelled by Matteo Visconti from his native city about 1290. He repaired to Lyon to give his sons the benefit of the superior educational advantages of that city, and there wrote his "*Chirurgia Parva*" in 1295. After the custom of the times, he travelled through various provinces practicing his art and arrived in Paris in the same year. At the solicitation of Jean Passavant, the dean of the medical faculty, he joined the College de St. Come. This college for surgeons had been but recently founded by Jean Pitard, surgeon to Louis IX—St. Louis—whom he accompanied on his unfortunate expedition, the sixth crusade in 1248 against Egypt.

Pitard also was the surgeon to the successors of St. Louis, Philip the Strong and Philip Le Beau, and through his influence secured the privileges of a college for the institution which had been evolved out of the guild of surgeons of Paris.

About 1271 several surgeons, headed by Jean Pitard, separated themselves from the medical faculty and established a college of their own, which, however, remained under the supervision of the medical faculty. All teachers in philosophy and medicine in the University of Paris were considered *clerici* and were forbidden to marry until this prohibition was lifted in the 14th century. Because he was in *vinculis matrimonii* he joined the college de St. Come—for as

however, to study medicine for two years and pass rigorous examinations. Their patron saints were Kosmas and Damian, the two martyrs, who early in the Christian era freed the Emperor Justitian of a supposedly incurable malady. He showed his appreciation of their work by building for them a temple to which the sick who had been given up by the physicians made pilgrimages and were cured in a similar manner as those in the temples of Esculapius.



a married man he could not become a member of the faculty of the university.

The members of this college were *laici* and were permitted to marry; they enjoyed the same rights as did the *magistri in physica* and wore the same robes of honor; hence they were called the *chirurgiens de robe longue*, in contradistinction to the lower class of minor surgeons, the "surgeons of the short robe." Before being admitted to academic honors they were obliged,

Both the "Chirurgia Magna" and the "Chirurgia Parva" have been handed down to us in the *Collectio Chirurgica Veneta* published in Venice in 1498, 1519, 1546 fol., and at Lyon 1553 fol.

The "Chirurgia Magna" was translated into French by Guillaume Yvoire, Lyon, 1490, 4.

In 1894 the Early English Text Society of England published an English edition under the title Lanfranc's "Science of Cirurgie," from the

Bodleian Ashmole manuscript of 1396, and the British Museum additional manuscript of about 1420.

A Spanish translation of the "Chirurgia Parva" appeared in Sevilla 1495 fol. A German version of it was done by Otho Brunfels, Strassburg, 1524. 4.

His lectures and demonstrations were soon attended by hundreds of students, for he was a splendid teacher and a practical man; his pupils accompanied him to the beds of his patients. He not only performed surgical operations before them, but also accompanied his demonstrations by explanatory discourses. These innovations had a most telling effect.

In 1296 he completed his "Chirurgica Magna"—an elaboration of the "Chirurgica Parva" published in the previous year. This work is one of the most important of his time although various estimates have been placed on it. Guy de Chauliac does not speak favorably of it; he contends that it is copied from William de Saliceto. Although it cannot be denied that it is based on William's book, nevertheless Lanfranchi added the results of his enormous experience and accurately recorded in his peculiar manner the observations he had made at the bedside.

It is also claimed that the Latin which he wrote is cleaner and better than that of his contemporaries as well as of his immediate successor in the surgical literary field—Guy himself. It contains sound surgical principles and shows conspicuous learning. He was not obsessed with the *furor operandi*—on the contrary he was timid, for he dared not perform lithotomy nor extract molar teeth. He opposed the truncation of medicine and surgery and insisted on their close union: the surgeon must be a physician and the physician must possess surgical knowledge.

The "Chirurgia Parva" according to the German translation of Brunfels contains the following chapters:

I. The qualifications of the surgeon and the things which he is to do.

II. Concerning wounds—stab wounds made by a knife or arrow.

III. Incised wounds made by a sword or any other thing.

IV. On incision of sinews (nerves).

V. To check bleeding from an injured artery or air artery—vein or artery.

VI. Wounds extending down to the bone as well as of the bone.

VII. Wounds of the head and fracture of the skull.

VIII. Wounds of the head without fracture of the skull.

IX. On the bite of a rabid dog.

X. Concerning abscesses.

XI. The treatment of abscesses and ulcers.

XII. Concerning all kinds of ulcers.

XIII. Reduction of dislocations.

XIV. On fractures.

XV. On diseases of the eye.

XVI. Summary of the principal medicines which a surgeon must have.

The "Chirurgia Magna" is published under the title "Practica quae dicitur ars completa totius chirurgiae."

It is divided into five treatises and contains illustrations of the more common instruments then in use—the trepan, the raspatory, and the different forms of the actual cautery. In the introduction, after praising the power and omnipotence of God, the author explains the reasons for publishing his work.

The first treatise is divided into three doctrines. The first chapter gives the etymology of the word surgery. In the second chapter the surgeon's physical and mental qualifications are described, and he concludes that besides a knowledge of Nature he should possess a complete knowledge of medicine. In the third chapter the *intentiones*, the activities of the surgeon which he must display, are considered, which are of three kinds: (1) he must undo that which is whole, (2) he must help that which is broken, and (3) he must remove that which is superfluous.

In the second doctrine a short chapter gives a survey of anatomy and physiology. In the third doctrine he treats, in the second chapter, of wounds and ulcers. He treated smaller wounds by applying a bandage—"ligature"—after placing over it the white of an egg and the much-used red powder; large gaping wounds are sewn; he gives a good description of the interrupted suture with an accurate account of how to make a surgeon's knot. In complicated wounds, with loss of tissue, he warns against uniting the wounds and advises alleviation of pain, the removal of the *sanies* and the *mala discrasia* and then to bring about regeneration and cicatrization.

"Because a nerve is the instrument of sensation and motion," he says in the third chapter, "and possesses *magna sensibilitas*," wounds of nerves are associated with great pain.

The ninth chapter treats of hemostasis by surgical means.

The knowledge of the circulatory system as known up to the time of Galen became less during the Middle Ages, although the surgeons of this period knew that the blood which escaped from a wounded *vena pulsalis*, an "artery," was of bright red color, passed out in jerks and in large quantities, while venous hemorrhage flows slowly, quietly and continuously and is of darker color.

Bruno and Lanfranchi are the first to mention the third kind of bleeding, namely, "capillary hemorrhage."

He knew the difference between venous, arterial and capillary hemorrhage, and recommends compression as a method of checking bleeding in these words:

"Tune pones digitum tuum super orificium magne vene vel arterie; et tenas per magnam horam; quia forte aliqua gutta sanguinis ibi

coagulibatur." Secondary hemorrhage is guarded against by carefully soaking the paste which had been applied after the hemorrhage had ceased, when removing the dressings.

This paste is composed of incense and aloe mixed with the white of an egg until it has the consistency of honey, and then hairs of a rabbit finely cut are added.

"Huic enim medicine non est par in sanguine restringendo et venam consolidando."

eum ferro calidissimo comburere magnam faciente escaram et perfectam."

This is unquestionably a clear and distinct description of the ligature of blood-vessels, but this passage and another a little further on still leave in doubt the question whether he practiced torsion.

The fifteenth chapter concerning spasm as a wound complication is especially interesting and fundamental.

Ashmole MS. 1396.

SCIENCE OF CIRURGIE.

- ¹Now þese chapitles of þis book ben y-ordeyned, I wole fulfille [1f. 2, bk.]
my purpos pursuyng ech chapitle bi ordre, & confemynge my
wordis aftir þe auctorite of myn auctouris and wiþ experiment þat
4 I haue longe tyme vsed wiþ þe help of god. // // //
A l þing þat we wolde knowe, bi oon of .iiij. maners þat we Capm. in
moun knowe, eiþir bi his name, or by his worchinge, or bi
his verri beyng schewyng propirte of him-silf / In þis
8 þre maner we moun knowe surgerie bi expownyng of his name;
for siurge cometh of siros, þat is a word of gru, & in englich siros Surgery is
from Greek
cheir a hand,
and ergon
work.
is an hand, & gyros gru, þat is worchinge in englich / For þe ende
& þe profite of syurgie is * [of hand-wyrchyng. Of þe Name of
12 a thyng Galyen seyth: he þat wyl knowe] soþfastnes of a þing,
bisie him nougt to knowe þe name of a þing, but þe worchinge & þe
effete of þe same þing / Therefore he þat wole knowe what siurgie is,
he moot vndirstonde, þat it is a medicinal science, which techiþ us It is a medi-
cinal science:
16 to worche wiþ handis in mannes bodi, wiþ kuttynge.or openyng þe

Addit. MS. Brit. Mus. 12,056.

- N**OW the Chapitelles of þis bok buþ y-ordeynde, y wyl fulfille
20 my purpos, pursuyng every chapyteH by ordere, & confem-
ynge my wordys after þe Autorite of myn Autores, & wiþ expyryment
þat y haue longe tyme y-ysyde with help of god.
A l thyng þat we wolde knowe, by on of þre maneres we mowe
24 knowe, opere by hys name ore by hys worchyng, opere by hys
verrey beyng schewyng propirte of hym selff. In þis þre manere
we mowe knowe surgerie by expownyng of hys name; ffor syrugie
cometh of syros, þat ys a word of grew3, & in englyssche syros ys
28 an hand, & gyros grew3, þat ys worchyng an Englyssche; for þe ende
& þe prophyte of surgerie ys* of hand wyrchyng. Of þe Name
of a thyng Galyen seyth: he þat wyl knowe* soþfastnesse of
a thyng, besye hym nojt to knowe þe name ²of a thyng, bute þe [fol. 33 b]
32 worchyng & þe Effecte of þe same thyng; where fore he þat wyl
knowe surgerie ys, he mote vndirstonde, þat yt is a medycineal
science, whyche techiþ vs to worche with handes in Mannes body, in

It seems, however, that occasionally even this remedy failed him for further on he says: "Si autem cum hac medicina non possis venam vel arteriam consolidare; vel sanguinem constringere propter aliquod impedimentum; opertet te nunc aut venam ligare et ipsam de loco extrahere: et caput vene vel arterie contorquere; aut illam

Tetanus.—"There be general tokens—symptoms—and there be special tokens of the cramps—tetanus.

"General tokens be these: A great ache, crokidness (obliquity) of the eyes and crokidness of the ears, of the nostrils and of the lips; and when that a man may not speak and the cheek be con-

strained and difficult to manage and namely of the neck and often constrained together and a sudden shaking together.

"Special signs: The one is called anaprostonos—emprostotonos—the other empistenos—opisthotonos, the third tetanus.

"In this manner of cramp that is called emprostotonos the sinews in front are drawn together, the fore part of the head is crooked, the sick man cannot lift it up, he beareth his chin as it lieth on his breast and his mouth is straight, and he may not open it, and the fingers of his hand are folded into his fist; and in opisthotonos the neck is crooked, his mouth is open, his cheeks are open and the fingers of his hand are strained backward, and the tetanus hath both sides of the body so that he may not turn his neck to either side, but all the body is stiff and strained as if a staff were put in at his neck and out at his ears.

"All these tokens, or else some of them, show the disposition of him that hath the cramp. And when that these tokens befall a wound of the head or a nerve be taken, better the leech flee from the sick man than on him to abide and cure."

Treatment.—When all remedies, bloodletting, clysters and ointments fail, "then it is necessary that you cut the sinew or the cord that the feeling and the moving of the limb, which the sinew or cord serveth in part or in all, be lost. For it is better that a man lose the feeling and the moving of a limb than to die."

This is the first recorded recommendation of neurotomy as a treatment for tetanus, although since the days of Celsus local treatment, dilatation of the wound for the purpose of removing pus, foreign bodies, etc., had been recommended.

He also was the first to recommend the reunion of divided nerves:

"The nerve must be cleansed and healed before the wound is closed. If a nerve has been cut into, although Theodoric and some others say to the contrary, it is well to sew together the ends of the nerves at the same time as the skin for then the limb may regain its motor powers."

In the ten chapters of the second treatise, wounds of the different parts of the body are discussed.

He gives a perfectly true clinical picture of concussion of the brain, without of course understanding its nature.

Listen how accurately he describes the cracked-pot sound elicited when there is fracture of the skull without an external wound:

"If the brain pan—skull—is broken without a wound of the head, and the patient suffer from vertigo, vomiting, disturbances of vision, great pain in the head and, if that he may not breke a knotte of straw with hise teeth and if the head be struck with a light, dry staff of willow or pine—and then put your ear to hise head and the bone is whole you shall hear a whole sound like

the sound of a whole hell. If you have your patient hold a thread with his teeth and you harp on it and the patient hears the sound then his brain pan is not broken."

The third treatise treats of diseases which are not injuries but which come under the surgeon's care, such as the apostemata—abscesses.

How accurate an observer and how ingenious a surgeon he was let the recital of the following case witness, which is the first instance of feeding through a tube:

"I will set in this place a cure that befell a lady in the city of Milan that was 50 winters old and a cynanche that occupied all her neck in front within and without, save that without the swelling was most, and this woman might not speak nor swallow in no meat. And this woman was under the cure of a young man that was my scholar and he could not fare well with her and though he was in despair of her life, I was sent after and found her in a wicked state (*in statu pessimo*) for she ate no meat for many days and she durst not sleep for dread lest she should be choked. Then I tested her pulse and it was wonderfully feeble, and I tested the place of the enpostym (abscess) and I knew well that she should be rapidly choked if the abscess broke without or within for the matter was so great. And then I took a razor and looked where the matter was most gathered for "to engender quit-ture" (to seek an opening—pointed) and it was most able under the chin, and I felt the place with my hand and touched it about that I might beware of nerves and arteries, and there I made a wound and there I drew out matter that was corrupt and it was foul stinking matter. Though the patient had her breath better and her pulse was comforted for the lung could take in air and therewith the heart be comforted, and then I gave her broth and that for the most part got out through the wound. I studied how I might best do and I had made a pipe of silver and put it in at her mouth and passed it further than the wound that it might fulfill the place of the throat gully tube."

Lanfrank then applied detergent and ripening remedies to make the matter escape until there came out of the wound a great gobbet of vicious matter and stinking and shaped like a great gut—a gangrenous slough—and when this was out "the stinking went away forthwith and the woman began to be stronger and when the wound had been made clean I dried it up and sewed it. And in this manner the patient was made whole."

He differentiated clinically between cancer and hypertrophy of the mammary gland and recommended compression over a powder of whet stone and vinegar or a plaster of cumin with honey and vinegar, in the following paragraph:

"Also it befalleth to maidens that their testis become more than they should by reason and

thou shouldst help them in this manner: Take stones that we whet knives on and rub these two stones together in vinegar long, till the vinegar become thick thereof and make it hot and anoint therewith her testis and then bind them.

"Also take eumin and make powder thereof and mix it with honey and vinegar; and it worketh the more strongly if you mix therewith

ingrossare mamillas; ne illas tangat vel tangi permittat." "Let her who does not wish to have her breasts grow large, have a care not to touch them nor to permit them to be touched."

Of course he was a child of his own times, not entirely freed from the poly-pharmacy which was rampant—holding to remedies as ridiculous as they were nauseating.

Kleine Wundartzney des hochberumptenn Lanfranci auff fürbitt des wolersarnen M Gregorij Flüß/Chyrur gen vund Wundartz zu Straßburg/durch Otto nem Brunsfels vertentfcht.

Daby viler bewerter Receptenn
Zaysamer salben vnd Arzneyen/eyn außzug/bißher von
abgenantz M. Grego. für sich selbst in großsem werd behal
ten/yez gmeynē nutz zu güt auch in truck geßē.



Die verlästerten vnd fremdden wüder außlegung sich am end

ammoniac and terra sigillata (the latter is a clay employed in surgery; it consists chiefly of aluminum silicate and when prepared for medicinal use it was stamped with a seal and was then called *terra sigillata*): grind them and temper with vinegar and make a paste thereof and let it lie thereon three days and then thou shalt wash it with cold water."

To this treatment he adds the following advice: "Caveat etiam illa quae non vult suas

In illustration: in abscesses of the neck and the throat after leeching and bloodletting, "then make him a gargarism of various shrubs mixed with the tordis of a sparrow or of an hen, or the tord of a hound that eateth manie boonyes and noon other mete (by this kind of food the *album græcum*, the white dung of a dog is produced) or a child's tord dried while it is soukyng."

For suppurating glands he recommends plasters composed in part of goat's or dove's dung.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

JUNE, 1911

EDITORIALS

THE KANSAS CITY SESSION

The fifty-fourth annual meeting of the State Medical Association, held at Kansas City, May 16, 17, 18, was a decided success from every point of view. The largest attendance in the history of the Association was registered, there being over 560 members on the register. Of this number 160 registered from Kansas City, showing that the interest in the work of the organization by the members throughout the state is exceedingly great.

The scientific program was perhaps the most attractive ever presented and was carried out almost in its entirety. The House of Delegates completed the business proceedings by noon of the first day, Tuesday, May 16, and the medical and surgical sections began their sessions on the afternoon of that day, promptly and with a full attendance. In the evening the president and orators addressed a large audience in the Casino. The president's address was characteristically forceful and penetrating. He laid particular emphasis on the inertia of the curators of the state university in providing medical education for state university students as contrasted with the earnest and progressive measures instituted to teach agriculture, law and veterinary medicine. At a later session the Association adopted a resolution pledging the influence and assistance of the organized medical profession to the curators of the university to reestablish the full medical course and to assist in obtaining funds from the legislature for maintaining this department. Whether the board of curators will accept the Association's offer of friendly cooperation is a doubtful proposition if we may judge from the inactivities of the board in the past toward the extension of the usefulness of the medical department.

Wednesday the 17th was entirely filled with scientific work, there being sessions of the medical and surgical sections in the afternoon, a general session for scientific work in the morning and another in the evening, the deliberations being pleasantly interrupted in the evening by dinners when everybody enjoyed the attentions offered to the physical man. The physicians of Jackson County Medical Society outdid themselves in providing a splendid course dinner and

over 300 members with their wives and families were served in the large dining-room of the Coates House from 6 to 8 o'clock. During the same hours the Washington University Alumni Association gathered about the dinner table in a smaller hall with more than eighty members present. The St. Louis University also had a dinner for its alumni but being scheduled from 8 to 10 p. m. was probably not as successful as it might have been and interfered with the transaction of the work of the Association for the evening. All alumni dinners in future should be so arranged that they shall not conflict with the regular work of the Association and, therefore, before any arrangements are made the program committee should be consulted as to what hours could be used without clashing with the program.

The Thursday afternoon session was well attended. This is the first time, we believe, that a scientific session has been successfully held on the afternoon of the last day of the meeting. It is conclusive evidence that the scientific work of the Association is regarded as its most important function. The innovation should become an established procedure.

Officers elected for 1911 are: president, Robert H. Goodier, Hannibal; vice-presidents, W. J. Ferguson, Sedalia; J. H. Amerland, St. Louis; C. H. Lester, Kansas City; G. W. Vinyard, Jackson; J. M. Stone, Laredo; secretary, E. J. Goodwin, St. Louis; treasurer, J. Franklin Welch, Salisbury. The terms of seven councilors expired and the following were elected: First District, C. L. Evans, Oregon, reelected; Tenth District, C. H. Dixon, Holliday; Fourteenth District, C. T. Ryland, Lexington, reelected; Sixteenth District, E. N. Chastain, Butler; Nineteenth District, W. A. Clark, Jefferson City; Twenty-Fifth District, T. T. O'Dell, Ellington; Twenty-Seventh District, Lee Welch, Mountainview.

The place for the next annual meeting was won by Sedalia, although St. Joseph was a close second choice.

THE MISSOURI SPECIAL TO LOS ANGELES

The special train of Missouri doctors for the Los Angeles meeting of the American Medical Association is filling up very rapidly. Already reservations have been made for over 100 people from St. Louis, Kansas City and St. Joseph, and the prospects for a most enjoyable out-trip are very enticing. A word in regard to return routes may be helpful, for this must be decided at the time tickets are purchased.

Almost everyone will want to go to San Francisco and tickets should therefore be purchased to that point and return. This will allow stop-over at Los Angeles for as long a time as one desires. In returning by any direct route there is no extra charge; these routes are: the South-

ern Pacific San Francisco to Salt Lake or Ogden, the D. & R. G. to Denver, via Glenwood Springs, Manitou and Pikes Peak, or any other direct line to Denver, the Union Pacific and Wabash or the Missouri Pacific to Kansas City, St. Joseph and St. Louis, or starting point; or any other direct line out of Denver. These lines give an opportunity of viewing the celebrated scenic wonders of Colorado and a side trip to the Yellowstone Park.

If one chooses a more northern route the extra fare will be \$15. The routes are the Canadian Pacific and the Northern Pacific. By the Canadian Pacific one gets a view of the remarkable mountain scenery of the Canadian Rockies, extinct volcanoes, glaciers, beautiful lakes high up in the mountains, and an indescribable succession of the wonders of Nature; also a ride on Puget Sound in modern steamships and visits to the live and progressive cities of Portland, Seattle, Tacoma, and other well-known coast towns. By the Northern Pacific the scenery is almost as generous and one is brought directly to the entrance to Yellowstone Park. Undoubtedly many members will desire to visit this remarkable garden and the choice of route lies between the Northern Pacific and the Southern Pacific, the former being the shorter line but the latter permitting a return trip through the grand and beautiful scenery of Colorado. Another direct route returning is via the Salt Lake route. This line runs through a fertile valley of orange groves and delightful scenery to Salt Lake, and from that point any direct line may be used returning.

Any members who anticipate making this trip and have not yet reserved accommodations in the Missouri train should do so now.

THE FARMINGTON SCANDAL

The system of control of our state eleemosynary institutions is responsible for another scandal. This time it is the Farmington Hospital for the Insane that suffers. Recently a patient there died after having received injuries that should have been discovered promptly by the attending physicians had they exercised ordinary care in the supervision of the inmates; and a female inmate became a mother although she had not been out of the institution for more than a year.

The medical profession of the state has contended for years that the appointments of physicians at these institutions should be made from the ranks of the organized profession, and until some recognition of the profession in this respect is established the regular medical profession will refuse to be held in any way responsible for the conduct of the medical men at these institutions.

Probably it will be impossible to prevent altogether irregularities in the management of our eleemosynary institutions, but we believe their occurrence will be reduced to a minimum if the

qualifications of seekers for such positions are closely scanned and their fitness established by recommendation from the profession which knows them and their attainments. It is well for our members to know that neither of the physicians involved in the scandal at Farmington is a member of the Missouri State Medical Association.

ANTITUBERCULOSIS CRUSADE

Under the auspices of the Missouri Association for the Relief and Control of Tuberculosis an enthusiastic campaign against tuberculosis was held in Louisiana, Mo., April 21 and 22. The meeting was held at the invitation of Mr. F. W. Buffum, who advertised the meeting thoroughly and was a large factor in the success.

A talk was given to high school students by Miss Winnifred Doyle, secretary of the association. In the evening a meeting was held at the Masonic Temple by the local physicians, assisted by Miss Doyle. Dr. William Porter and Dr. George Homan, chairman of the executive committee of the association, gave a stereopticon lecture on Saturday evening which was attended by a large audience. Dr. Porter gave a talk in one of the churches on Sunday, April 23.

The ministers and schools promised to observe the day set apart as tuberculosis day, April 30, for which a great many governors have issued a formal proclamation.

The physicians at Louisiana took part in the campaign for the organization of a local society for the prevention of tuberculosis.

FOURTH OF JULY WOUNDS

For many years the dominant notes in the celebration of our Independence Day have been, not the major chords of great joy, deep peace, and limitless good will, but rather the minor notes of pain and suffering, mingled with the heartaches of the bereaved and the sorrows of a sympathizing public. The headlines of our daily press have announced, not the enthusiastic loyalty and willing allegiance of the youthful millions of our land to the principles for which our forefathers shed the world's noblest blood; they have, on the contrary, flashed forth the story of a unique peaceful battle, counting the dead by the hundreds and the maimed by the thousands.

Quite fittingly this carnage of the Nation's hope is to be arrested primarily through the unselfish efforts of the medical profession. For years the *Journal of the A. M. A.* has been pointing out the dangers of the customary unbridled Fourth of July frolics by irresponsible, reckless people—young and old.

The St. Louis Medical Society united with the Medical Society of the City Hospital Alumni to bring the public in St. Louis to realize the uselessness of the slaughter, and the great gain in

safety and patriotic impulse, by abolishing the private and indiscriminate use of dangerous fireworks and substituting athletic sports, picnics, parades and addresses, historical moving picture shows, and the exhibition of fireworks for the entire public by experienced and careful operators. The local dealers in fireworks seconded these efforts and aided in the passage of a law prohibiting the use of many of the most dangerous explosives.

The result of the restraint enforced by the governor, the mayor, and the local police force in 1910 was extremely gratifying. It was the first time in years that no death from accident was recorded in St. Louis. There were no serious injuries in 1910 as compared with twenty-three the previous year and the number of minor injuries reported was reduced from 200 to forty. In the one district where arrangements for a modern celebration were perfected and carried out, not a single accident occurred.

The problems connected with the attainment of a modern Fourth of July celebration are more easily solved in the smaller cities and many of them all over the country are leading in the new endeavor to make this greatest of our national holidays truly the happiest.

But many accidents still occur. These should be treated as infected wounds. More than that, in every case the antitoxin for tetanus should be administered at the time of the first treatment. The immediate injection is absolutely essential and positively efficacious. Waiting for the symptoms of tetanus to appear before making the injection renders it quite useless.

No more dreadful end for a festive occasion can be imagined than the slow tortures and almost certain death by tetanus. The duty of the physician to use all possible preventive measures is an imperative one.

EDITORIAL NOTES

DR. DANIEL MORTON of St. Joseph has resigned as chief surgeon of the N. G. M. Dr. Morton was acting chief surgeon for five years and has been chief surgeon since 1907.

DR. CLEVELAND H. SHUTT has returned from Europe and opened offices in the Metropolitan Building, St. Louis. He will limit his practice to surgery.

THE Society of Research in Tuberculosis met at 525 Clara Avenue, St. Louis, on April 20. The object of the society is to stimulate research in problems connected with tuberculosis, both medical and surgical. Dr. Roland Hill read a paper entitled "Some Surgical Aspects of Tuberculo-

sis." The following officers were elected: president, Dr. William Porter; vice-president, Dr. L. C. Boisliniere; secretary, Dr. Ross Hopkins.

BOAT EXCURSION FOR THE BENEFIT OF THE ST. LOUIS MEDICAL SOCIETY.—The third annual boat excursion under the auspices of the Medical Society of the City Hospital Alumni, St. Louis, will be held on the evening of Thursday, July 13, 1911. Boat leaves at 8:15 p. m. The tickets will sell for 50 cents each, and the proceeds will be given to the St. Louis Medical Library.

THE series of lectures to the public under the auspices of the American Medical Association Public Health Education Committee in St. Louis closed on May 4 with lectures on "The Health of Women in Youth and Maturity." Dr. Ella Marx discussed the subject of "Hygiene of Adolescence and Menstruation"; Dr. E. W. Saunders spoke on "The Hygiene of Pregnancy"; and Dr. F. Reder spoke of "The Value of Early Diagnosis of Cancer in Women." Altogether eight meetings were held from March 16 to May 4 and the public was instructed in the means of preventing disease. The interest in the meetings grew with their continuation and the later ones were attended by large audiences. The work should be continued.

INFORMATION ON POST-GRADUATE MEDICAL EDUCATION.—The delegates of the United States to the International Committee for Post-Graduate Medical Education will maintain a bureau of information on medical education, particularly post-graduate medical education. All available information on this subject will be kept on file for the benefit of those who inquire personally or by mail about the educational facilities in the different medical centers of the world. This bureau of information will be located at 303 East Twentieth Street, New York City, and will bear the name of: American Bureau of Information of the International Committee for Post-Graduate Medical Education. All communications should be addressed to "Medical Information Bureau, 303 East Twentieth Street, New York City." Communications requiring answer must be accompanied by stamped envelope.

THE following articles have been accepted by the Council on Pharmacy and Chemistry for New and Nonofficial Remedies:

Cargentos (H. K. Mulford Co.).

Cargentos tablets (H. K. Mulford Co.).

Cargentos rectal suppositories (H. K. Mulford Co.).

Cargentos vaginal suppositories (H. K. Mulford Co.).

Cargentos urethral suppositories or bougies (H. K. Mulford Co.).

Ovagal (Riedel & Co.).

Ovagal capsules (Riedel & Co.).

Xerase (Riedel & Co.).

Xerase capsules (Riedel & Co.).

Trypsogen (G. W. Carnrick Co.).

Antidysenteric serum "Hoechst" (Victor Koechl & Co.).

Antipneumococcus serum (Victor Koechl & Co.).

Triturated tubercle bacilli (Victor Koechl & Co.).

Arhovin (Schering & Glatz).

Arhovin capsules (Schering & Glatz).

SOCIETY PROCEEDINGS

ADAIR COUNTY MEDICAL SOCIETY

The Adair County Medical Society held its regular monthly meeting on Thursday evening, May 4, 1911, at the office of Drs. Martin and Parrish, Kirksville, with the following members present: Drs. J. W. Martin, A. W. Parrish, T. R. Butler, E. S. Quinn, J. S. Gashwiler, C. S. Wilson, E. C. Callison and B. B. Parrish. The society had as a visitor Dr. Montgomery from Sullivan County Medical Society.

The secretary read a communication from the Missouri State Medical Association giving notice of change of annual meeting from Jefferson City to Kansas City, May 16, 17, 18.

The committee appointed by the president on the subject of a free clinic reported not ready and was given extended time.

Dr. C. S. Wilson filed his application with the secretary, and the censors reporting favorably and by suspension of rules Dr. Wilson was unanimously elected a member.

The scientific program was next taken up and Dr. J. W. Martin gave a most interesting and instructive paper on the subject of "Scarlatina," carefully elucidating the etiology, pathology, symptomatology, diagnosis, prognosis, sequelae and treatment. The paper was well prepared, and demonstrated carefulness in diagnosis and prevention of sequelae. The subject brought forth a lively discussion by all members.

Adjournment was taken to the first Thursday in June, when the society will meet with Dr. J. S. Gashwiler, in Novinger.

BERT B. PARRISH, M.D., Secretary.

BENTON COUNTY MEDICAL SOCIETY

Benton County Medical Society met in Warsaw, Monday, May 1, at 10 a. m., in Dr. Smith's office, with the president, Dr. W. G. Jones, in the chair.

Dr. Harry E. Dunlop (recently located at Cole Camp) was present and made application for membership to the society.

Dr. Marion Dillon of Fairfield, second term coroner of Benton County, read a very able paper entitled "Eclampsia," which through his kindness I have the pleasure of enclosing for publication. The paper was discussed freely by every member present, and a very interesting and helpful talk was made by Dr. Dunlop.

Dr. Sam. G. Kelley, councilor for the Seventeenth District, was to have been with us, but missed the train out of Sedalia; he called up over the phone and expressed his regrets in not being able to meet with us.

Every member was urged to use his influence in promulgating the code of ethics, and thereby bring about a stronger union of the profession.

A medical fee bill, which had been drafted by a special committee, was recommended by the society to be hung up in every doctor's office for the information of the laity as well as unity of action in the medical profession.

The next regular meeting will be held, by invitation, with Dr. M. Dillon of Fairfield, Mo., July 11, 1 p. m., in his beautiful offices overlooking the grand scenery of the Pome-le-de-tarre River.

Members present: Drs. Harry E. Dunlop, Cole Camp; E. L. Rhodes and W. G. Jones, Lincoln; Marion Dillon, Fairfield; Robert L. Pomeroy and Secretary Smith of Warsaw.

Those being unable to attend missed a very interesting and profitable meeting.

R. L. SMITH, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau Medical Society held its regular monthly meeting at Cape Girardeau, May 8, with the following members present: Drs. Cunningham, Hays, Hope, Howard, Schulz, Wichterich, Wilson and Yount.

Dr. Schulz, delegate to the state meeting, reported that he could not attend and Dr. Hays, our president, was appointed alternate.

The program for the evening consisted of a paper on "Laryngitis" by Dr. Yount and a paper by Dr. Cunningham entitled "Prognosis of Heart Cases." Both papers created the usual discussion and Dr. Cunningham was requested to send his paper to THE JOURNAL for publication.

On motion society adjourned to meet at Jackson, June 12.

E. H. G. WILSON, M.D., Secretary.

DAVIESS COUNTY MEDICAL SOCIETY

The Daviess County Medical Society held its regular meeting with Dr. A. G. Minnick at Lock Springs, Tuesday, April 18.

Those in attendance were: Drs. W. L. Brosius, M. A. Smith, D. L. Hanna, of Gallatin; H. E. Songer, of Jamesport; and N. M. Wetzel, of Jameson.

Dr. A. G. Minnick read a very interesting paper on "Whom Shall We Serve?" which was discussed by every member present.

The Daviess County Society promises to be one of the best in the state as it is in close affiliation with the state society, sending a delegate each year to the state meeting.

Dr. H. E. Songer is the delegate to our meeting in Kansas City May 16, 17 and 18. Dr. L. R. Doolin is alternate delegate.

The next regular meetings will be held at Jamesport in July, Jameson in October, and Pattonsburg in December.

M. A. SMITH, M.D., Secretary.

LEWIS COUNTY MEDICAL SOCIETY

The Lewis County Medical Society held its regular meeting at Lewistown, Mo., Wednesday, May 17, 1911, in the office of Dr. J. C. Brown.

Officers present: T. F. McGlasson, vice-president, Paul F. Cole, secretary and treasurer. The following other members were present and took an active part in the program: Drs. Z. T. Knight, G. P. Knight, William L. Ellery, H. W. McKim, J. C. Brown, R. B. Schofield, J. V. McKim and Z. Brainerd.

A motion was made and carried to make \$2 the minimum fee for examinations for fraternal life insurance companies in this county. This motion was made by Dr. Z. T. Knight and brought out a spirited discussion.

An interesting program was carried out and the society adjourned to meet in La Bell, Mo., June 15, 1911.

PAUL F. COLE, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

MEETING OF APRIL 5

The regular meeting, April 5, 1911, was called to order by Dr. S. F. Kessler, president.

Officers absent: Drs. J. I. Byrne, W. B. Deffenbaugh, O. B. Campbell, A. B. McGlothlan, C. O. Jeffries.

Application of Dr. B. W. Tadlock was voted on and he was declared elected to membership.

A letter from the secretary of the State Board of Health, in regard to a case of alleged abortion was read, and the subject matter referred to standing Committee on Public Health and Legislation.

A motion to publish the names of delinquent members whose annual dues are unpaid, in the next copy of the *Bulletin* carried.

An act, proposed by the St. Louis Medical Society, to regulate the civil service of the state hospitals of Missouri, was indorsed, and instructions issued to delegates to the state society accordingly.

Dr. Jacob Geiger reported the case of a young woman with necrosis of the ileum and the removal of 12 inches of small intestine, with recovery. Dr. S. F. Kessler reported another case with bowel involvement.

Dr. C. H. Wallace reported the case of a boy with enlarged testicle due to sarcoma operated on successfully, and Dr. Jacob Geiger reported the case of a man with a sarcomatous growth on the spermatic cord, from which a tumor 3.5 pounds in weight was removed. Dr. C. A. Good in explaining the rapidity of growth in round-celled sarcoma called attention to the artificial cultures in suitable nutrient media recently made of these cells in the Rockefeller Institute in New York City.

Dr. J. T. Stamey read the paper of the evening on "German Measles, with Special Reference to its Diagnosis from the Milder Forms of Scarlet Fever." It was discussed by Dr. C. H. Wallace, who advocated a longer period of quarantine for scarlet fever. Also by Drs. S. F. Kessler, O. G. Gleaves, Levi Long, A. L. Gray, C. A. Good and W. T. Elam. Discussion closed by Dr. Stamey.

MEETING OF APRIL 19

Dr. S. F. Kessler, president, in the chair.

Officers absent: Drs. J. I. Byrne, J. F. Owens, J. M. Bell, W. B. Deffenbaugh, C. H. Wallace and A. B. McGlothlan.

Notice read from State Medical Association changing place of annual meeting from Jefferson City to Kansas City, Mo., May 16, 17 and 18.

Dr. O. B. Campbell presented a patient, a man 67 years old, showing the result of an operation for epithelioma, involving the eye, and called particular attention to the successful skin grafts covering the wound.

Dr. S. F. Kessler reported a case of trauma to the temporal bone, with a piece of steel one-half inch long by one-quarter inch wide, penetrating the brain substance, due to the explosion of a shotgun. Patient operated on successfully.

Dr. Levi Long read the paper of the evening on "Scarlet Fever." Discussed by Drs. A. H. Vandivert, J. H. Sampson, R. Willman, P. I. Leonard, A. E. Holly, H. P. Mills and O. B. Campbell. Discussion closed by Dr. Long.

The next meeting of the society was arranged to take place in Savannah, Mo., on Saturday afternoon, May 6.

MEETING OF MAY 6

Regular meeting at Savannah, Mo., May 6, 1911, Dr. S. F. Kessler, president, in the chair.

Dr. O. C. Gebhart read an interesting paper on the "Prophylaxis and Treatment of Tuberculosis," Dr. Herbert Lee one on "Tuberculosis in Animals," and Dr. O. G. Cleaves one on the "Early Manifestations and Widespread Dissemination of Tuberculosis." Discussion opened by Dr. C. O. Jeffries; Drs. C. R. Woodson, Jacob Geiger, R. Willman and M. J. Farber also discussed the subject.

On motion the privilege of the floor was extended to visitors, when Dr. C. M. McFarland of the U. S. Bureau of Animal Industry spoke of the work being done by the government.

Dr. Kessler appointed the following members to report the proceedings of the coming meeting of the Missouri State Medical Association: Dr. Jacob Geiger, surgery; Dr. O. G. Cleaves, general medicine; Dr. J. M. Bell, gastro-enterology; Dr. Barton Pitts, ophthalmology; Dr. C. R. Woodson, psychiatry; Dr. J. F. Owens, gynecology; Dr. A. L. Gray, obstetrics.

No meeting will be held on May 17 on account of the session of the State Medical Association at Kansas City on that date.

HERBERT LEE, M.D., Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY

The Ste. Genevieve County Medical Society held its regular monthly meeting May 10, 1911. President Rutledge in the chair.

Interesting clinical cases were discussed, after which matters concerning the business interests of the profession were considered.

The application of Dr. J. A. Turner of Coffman, Mo., for membership, was read and tabled until the next meeting as per by-laws.

No further business appearing, the society adjourned. The next regular meeting will be held on the second Wednesday in June.

R. W. LANNING, M.D., Secretary.

SULLIVAN COUNTY MEDICAL SOCIETY

The Sullivan County Medical Society met at Milan, May 9.

The following members were present: Drs. Witter, Roberts, Garner, Wilson, Tunnell, Kissinger and Montgomery. As visitors we had with us Dr. Callison of Kirksville and Drs. Duffy, Wright and Moore of Trenton.

An excellent paper on "Psycho-Therapeutics" was read by Dr. Callison and discussed by the society.

The following officers were elected: president, Dr. A. W. Widner, Newtown; vice-president, Dr. J. C. Roberts, Boynton; secretary-treasurer, Dr. J. S. Montgomery, Milan; delegate, Dr. J. D. Tunnell, Reger; board of censors, Drs. Witter, Porter and Kissinger.

During the summer the society will meet on the second Tuesday of each month, at 1 p. m.

Visitors from neighboring societies always welcome.

J. S. MONTGOMERY, M.D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY

The Scott County Medical Society met at Benton, April 2, in the office of Dr. Haw, Dr. W. H. Wescoat presiding.

Members present: Drs. Frazer, Sr., W. H. Wescoat, U. P. Haw, G. S. Cannon, P. S. Tate, W. S. Hutton. Visitor, Dr. O. V. Smith.

There being none of the members on the program present, the president called for reports of cases. Dr. Frazer reported a case of uremia in chronic Bright's disease in which no symptoms preceded the attack. Both hyaline and granular tube casts and a large percent of albumin were found. Dr. Haw reported a case of appendicitis complicating confinement. Dr. Cannon reported a miscarriage with twins, all pain being

referred to McBurney's point. Dr. Smith reported a case of peritonitis of eight days' duration that resulted in death.

Dr. G. S. Cannon was appointed delegate to the state medical meeting.

Adjourned to meet first Monday in July.

W. S. HUTTON, M.D., Secretary.

CATALOGUE ST. LOUIS MEDICAL LIBRARY 3525 Pine Street

(Continued from page 384)

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